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ABSTRACT

This handbook gives a broad overview of the practice of institutional research in higher education. The first of the handbook's four chapters describes how to define the context for institutional research by looking at where the institution is now, where it is going, and how it can arrive at its desired end. Chapter 2, which discusses how to identify resources in the process of getting an institutional research program started, covers publications, associations, in-house and external data sources, institutionally initiated data collection, and analytical tools. Chapter 3 takes each of the components of a university or institutional system separately and discusses research strategies for quantifying and measuring the component. Chapter 4 offers final thoughts, emphasizing that the most valuable resource of any institutional researcher is the human intellect which should be driving any research project. Appendixes comprising over half of the document contain a sample student survey from the University of Delaware, tables of data on admissions profiles of first-time students at a New Jersey institution, professional data on college faculty, institutional financial data, a building inventory, a paper on enrollment, dropout, and graduation rates at one college with attendant data, an academic activities report, a financial report form, an instructional workload analysis, and a sample student exit survey. (JB)

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A HANDBOOK FOR NEWCOMERS TO INSTITUTIONAL RESEARCH

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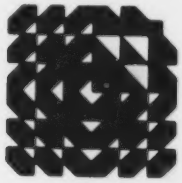

NORTHEAST ASSOCIATION FOR INSTITUTIONAL RESEARCH
INSTITUTIONAL RESEARCH INFORMATION SERIES
NO. 2

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A HANDBOOK FOR NEWCOMERS TO INSTITUTIONAL RESEARCH

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INTRODUCTION

To the best of my knowledge, neither I nor any of my colleagues in the institutional research profession ever told our parents, "When I grow up, I want to be an institutional researcher!" How did we arrive in this line of work? What keeps us energized and in the profession?

In my instance, I was a high school biology teacher who returned to graduate school to pursue a doctorate in educational administration, and later, a school district superintendency. But as often happens, things went awry. In doing my doctoral dissertation, I fell in love with the research process - with defining problems, collecting information, and formulating policy recommendations. As fate would have it, in my last year of study I came across a job opening for an Assistant Director of Institutional Research at the State University of New York, College at New Paltz. My first boss, John Mandryk, was nearly as new to the field as I. But he was willing to take a chance on an enthusiastic and energetic neophyte, and together we built a model institutional research office. Our evolution as researchers, particularly mine, was not without its bumps, and it is hoped that this monograph will help the reader avoid some of the early "bruising" experiences.

Ten years later, I can safely say that I've found my niche. I'm doing what I love and am reasonably well paid for doing it. I have a natural outlet for my curiosity. I can see tangible results from my research efforts. I touch the pulse of a university on a daily basis. My enthusiasm for my work must be infectious - my teenage son actually asked me what one would have to study in college to become a Director of Institutional Research!

Welcome to an exciting enterprise. I hope that this volume will aid you in getting started. To John Mandryk, my thanks for the early chance to prove myself. On behalf of all of my colleagues, particularly those of us who comprise the North East Association for Institutional Research, we invite you to join us in shaping college and university policy for the Twenty First Century.

CHAPTER ONE: DEFINING THE CONTEXT FOR INSTITUTIONAL RESEARCH

What exactly is institutional research and why do we do it? To answer that question, we must first know a little bit about the information needs of colleges and universities, particularly with respect to policy and decision making.

Institutional research must play a focal role in addressing three questions central to the continued survival of the organization:

1. **Where is the organization at this moment?** Specifically, what is the "fit" between the college or university's institutional mission and the programs and services which it currently has in place? What is the institution's position within the educational marketplace? Who are the competition and what are they doing?

2. **Where is the organization going?** What do indicators tell us about potential changes in the environment in which we operate? What changes do we need to consider with respect to programs and services currently offered that are: a) consistent with the institutional mission, and b) reflective of changing environmental conditions?

3. **How can the organization best arrive at its desired end?** What are the alternative courses of action available to the institution in pursuing its objectives? What are the costs associated with implementation of the various alternatives? Can the institution afford to act? Can the institution afford not to act?

Let us use these three general questions as a foundation for framing the following working definition of institutional research:

> **Institutional research is the sum total of all activities directed at empirically describing the full spectrum of functions (educational, administrative, and support) occurring within a college or university. Institutional research activities examine those functions in their broadest definitions, and embrace data collection and analytical strategies in support of decision-making at the institution.**

Fine, you say - I'm supposed to collect all of these data and render them into usable reports in support of decision making at my institution. But I'm new at this game! Where do I begin? What tools do I use? Are there tricks of the trade?

Let us begin by developing a conceptual framework for thinking about the institutional research process as it applies to any organization, including colleges and universities. An extremely useful way of viewing colleges and universities (or any

organization, for that matter), is to think of them as "open systems". There are references at the end of this chapter for the reader who wishes to pursue the concept of systems theory as it applied to organizations. For now, however, suffice to say that all organizations are comprised of three central components: inputs, processes, and outputs. In order to function and remain viable, the organization must continuously secure new inputs and process them to generate a "quality" product. Implicit in this cycle of events is an on-going series of transactions with an environment external to the organization, an environment which must ultimately supply the raw materials (inputs) and which serves as the ultimate arbiter as to whether the organizational product has sufficient "quality" to merit consumption. Figure 1 illustrates the systemic concept within the context of higher education. Let's discuss the principles in greater detail.

Consider the inputs into the higher education enterprise. We require students, faculty, and staff. We need buildings in which to teach and conduct other aspects of educational business. We need money to pay salaries, to buy books and equipment, and to fund other business-related activities. Institutional research describes these inputs in a way that answers such fundamental questions as: Who or what are they? How many are there? What do they look like? Think about the following basic information that we need to know about the inputs into our colleges and universities:

A. Students: How many matriculated and non-matriculated students are enrolled? How may are full time and how many are parttime? Undergraduate and graduate? What is their general demographic profile?

B. Faculty: How many full and part time faculty are employed at the institution? What is the highest earned degree held by each faculty member, and from which granting institution? What is the general demographic profile of the faculty? Is the institution succeeding in attracting the best and brightest young scholars available?

C. Staff: The same general questions asked about faculty also apply to staff. Is the institution attracting the best possible personnel to support the basic educational enterprise?

D. Facilities: How many buildings on how many acres comprise the campus? What is the age and general condition of the buildings? What is the gross versus net square footage in each building? How efficiently are classrooms and other instructional spaces utilized?

E. Financial Resources: What proportion of institutional revenues come from tuition and fees? From governmental appropriations? From contracts and grants? From gifts? From other sources? What is the relative strength of each of these revenue streams?

A similar set of questions can be posed with respect to the "process" component in higher education. The fundamental questions here - and far more difficult to answer - focus on such issues as: What are we doing with the inputs? How are we changing

FIGURE 1
CONCEPTUAL FRAMEWORK FOR ANALYSIS OF UNIVERSITY FUNCTIONS

EXTERNAL ENVIRONMENT

- Fiscal/Economic considerations
- Marketplace Considerations
- Governmental/Regulatory Considerations
- Other Considerations

them? Are we doing a good job? Are we doing an efficient job? Consider the following basic process issues:

A. Institutional Mission: What are the objectives of the educational process at this institution? What is the intended interplay between and among instruction, research, and public service activity within the context of that mission?

B. Academic Programs and Services: What degree programs are offered at the institution? What is the depth and breadth of services designed to support those programs (e.g., library, computing, resource centers, advising, counselling, tutoring, etc.)? How satisfied are the consumers?

C. Other Programs and Services: What services are offered to meet the full range of needs of both students and employees (e.g., extracurricular activities, career planning and placement, personal counselling, health/wellness services, mid-career renewal opportunities, etc.)? How satisfied are the consumers?

D. Completion: To what extent do students, faculty, and staff, complete the process for which they were recruited. That is, how many students graduate and how many employees remain until retirement? For what reasons do some fail to complete?

E. Productivity: Do sensible strategies exist for measuring academic and administrative productivity? What common units of measurement have been defined? Is it possible to accurately distinguish between a "lean" and a "rich" operation?

F. Quality: Can quality, as it applies to any aspect of the academic enterprise, be measured? If so, where to begin? Is it possible to obtain comparative measures of quality vis-a-vis other institutions?

G. Strategic and Budget Planning: How can "process" data be most effectively used in defining institutional direction and in allocating resources to achieve that direction?

Finally, basic questions are posed with respect to the organization's outputs. What are the tangible products of the processing of organizational inputs? The following issues are worthy of consideration:

A. Graduates: How many students graduate from the institution each year, and with which degrees in which disciplines? What is the initial post-graduation employment or graduate school placement? Do graduates feel that their college experience has relevance to post-graduation activity?

B. Cognitive Outcomes: What demonstrable cognitive gains can be measured in those who are "processed" through the college or university experience?

C. Value Added Outcomes: What behavioral and attitudinal changes can be directly or indirectly attributed to the college or university experience?

D. Other Outcomes: To what extent is the college or university contributing to the body of knowledge, as measured in terms of research, publications, patents, public service, etc.?

Simply measuring inputs, process, and outputs is a significant task, in and of itself. The most significant aspect of viewing an educational institution as an open system, however, is the acknowledgement that the organizational environment has a profound impact upon the institution's ability to perform its systemic functions. Environmental issues raise another series of questions:

A. Marketplace Considerations: What it the institution's position in the admissions recruiting and faculty recruiting marketplaces? Are enrollment and staffing projections consistent with marketplace considerations? How is the marketplace likely to change during the next 10 to 20 years?

B. Fiscal/Economic Considerations: What is the institution's overall condition with respect to fiscal health? What have the trends been with respect to revenue and expenditure streams for selected institutional functions (i.e., instruction, academic support, student support, financial aid, facilities maintenance, etc.)? How do institutional income and expenditure patterns compare with those of peer institutions? How will external factors such as inflation and prime interest rate likely affect the institution?

C. Governmental/Regulatory Considerations: How do governmental regulations, ranging from affirmative action to asbestos abatement affect the organization? How do mandates (assessment, NCAA compliance, federal and state reporting requirements, etc.) affect operations?

D. Other: In what other ways does the environment have an impact upon the college or university's operations?

Table 2 summarizes the types of measures that institutional research seeks in responding to the foregoing questions raised with respect to inputs, process, and outputs, within the broader environmental context. These measures will be discussed in detail in Chapter 3, which deals with strategies for data collection.

Figure 2: Selected Institutional Research Measures of Organizational Input, Processes, and Outputs Within a Higher Education Context

SYSTEMIC COMPONENT	SELECTED MEASURES	
INPUTS (Fundamental Questions: What are they? How many are there? What do they look like?)		
Students	Headcount	Ethnicity
	Full/Part Time Status	Geographic Origin
	Full Time Equivalency	High School GPA
	Sex	SAT/ACT Scores
	Age	Other
Faculty and Staff	Head Count	Ethnicity
	Full/Part Time Status	Highest Degree
	Full Time Equivalency	Entry Salary
	Sex	Tenure Status
	Age	Other
Facilities	Campus Acreage	Space Inventory
	Buildings-Owned/Leased	Utilization Rates
	Gross Square Footage	Other
	Net Square Footage	
Revenues	Tuition and Fees	
	Government Appropriations	
	Contracts and Grants	
	Gifts	
	Other	
PROCESSES (Fundamental Questions: What are we doing with inputs? How are we changing them? Are we doing a good job? Are we doing an efficient job?)		
Institutional Mission, Academic and Support Programs	Degree Program Inventory	
	Course Inventory	
	Support Program Inventory	
	Program Utilization Studies	
	Student Satisfaction Studies	
	Faculty/Staff "Quality of Life" Studies	
	Other	

Figure 2: Processes (continued)

SYSTEMIC COMPONENT	SELECTED MEASURES
Completion	Retention Attrition Analyses Graduation Analyses Faculty Retention Analyses Withdrawing/Non-Returning Student Analyses Exiting Faculty Studies Other
Productivity	Grade Distribution Analyses Instructional Workload Analyses Faculty Effort Reports Research Grant/Patent Activity Inventory Other
Quality	Institutional and Programmatic Accreditations Reputational Ranking of Academic Programs Other
Strategic/Budget Planning	Trends in Revenues and Expenditures by Budget Unit, By Object and Function Financial Ratio Analysis Other
OUTPUTS (Fundamental Questions: organizational inputs)	What are the tangible products of the processing of
Graduates	Post-Graduation Activity Analysis Alumni Follow Up Studies
Cognitive Outcomes	Grade Distribution Studies Cognitive Gain Testing
Value Added Outcomes	College Student Experience Analyses
Institutional Outputs	Research Grant Inventory Faculty Publications Analysis Public Service Project Inventory Other

Figure 2: Environmental Considerations (Continued)

ENVIRONMENTAL CONSIDERATIONS (Fundamental Question: What affect are factors external to the institution affecting the conduct of business?)

SYSTEMIC COMPONENT	SELECTED MEASURES
Marketplace Factors	Admissions Marketing Analyses High School Student/Admissions Yield Projections Comparative Compensation Studies U.S. Census Demographic Projections Other
Fiscal Factors	Consumer Price Index Projections Educational Price Index Projections Regional Economic Analyses Other

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The list of measures outlined in Figure 2 is not exhaustive, but does provide a solid base for assembling information that will begin to describe the various components in the "open system" approach to studying a college or university.

It may seem, at first glance, that the task of developing data collection and analytical strategies to address the selected institutional research measures outlined in Figure 2 is overwhelming. Yet much of the data described in Figure 2 are already being collected by institutions for other purposes. And the institutional researcher can and should be selective about the number and scope of studies undertaken in a given year. The process through which the new institutional researcher can tap into a network of existing resources and develop a program of on-going studies and analyses is the focus of Chapter Two.

For the reader who wishes to pursue additional material on organizations as systems, two volumes in particular are highly recommended:

Hall, Richard H. Organizations: Structures, Processes, and Outcomes (Fourth Edition). Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1987.

Aldrich, Howard E. Organizations and Environments. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1979.

Keller, George. Academic Strategy. Baltimore, Maryland: Johns Hopkins University Press, 1983.

Each of these works contains a bibliography that enriches the institutional researcher's perspective on organizational dynamics.

CHAPTER TWO: GETTING STARTED - IDENTIFYING RESOURCES

The task of assembling a first-rate institutional research program is facilitated considerably by the availability of a broad spectrum of resources, both within and outside of the home institution. Publications, professional organizations, commercial data collection instruments, and other aides supplement in-house databases, and all are available to the new institutional researcher who knows where to seek them. The purpose of this chapter is to describe that network of resources, and to stimulate the reader to seek creative ways to find assistance in developing his/her first institutional research program.

Books/Journals

A number of valuable books and publications are in print which will greatly assist the newcomer to institutional research in better understanding the context of higher education, and in shaping appropriate research methodologies to address major issues. The list of such publications is extensive, and this monograph will cite only those which, quite frankly, the author has found most useful over time. The reader is urged to use the bibliographies in the publications cited to expand and extend the readings to meet his/her own specific needs.

1. Two volumes that describe the rudiments of institutional research should be found on the resource shelf of every institutional research office:

   "Organizing for Institutional Research" (Jennifer Presley, editor), in New Directions in Institutional Research series. San Francisco: Jossey-Bass, 1990.

   Dr. Presley has assembled an impressive set of contributed chapters which describe conceptual contexts for thinking about institutional research, and practical strategies for setting up the institutional research office and going about the data collection and analysis processes. This is "must" reading for newcomers to the profession.

   A Primer on Institutional Research (John A. Muffo and Gerald W. McLaughlin, editors). Tallahasee, Florida: Association for Institutional Research, 1987.

   Muffo and McLaughlin, two veteran institutional researchers, have assembled a volume of contributed papers from other practitioners in the field, offering helpful tips on data management and on the practice of institutional research in such areas as retention, workload analysis, etc. The book's value is as a conceptual stimulus, rather than as a "how-to" manual.

2. Norris, D.M. and Poulton, N.L. A Guide for New Planners. Ann Arbor, Michigan: Society for College and University Planning, 1987.

   This volume is designed to introduce college administrators to the central issues in planning processes within higher education. The value to the institutional researcher is its definition of those areas where quantitative analysis underpins and supports institutional planning.

3. The National Center for Higher Education Management Systems (NCHEMS) produces a number of useful publications. The following should prove especially helpful to the new institutional researcher:

   a. Executive Overview Series. NCHEMS issues a series of monographs under its "Executive Overview Series". The following titles are especially relevant for the new researcher:

      - Jones, Dennis P. Data and Information for Executive Decisions in Higher Education.

      - Barak, Robert J. Program Review in Higher Education: Within and Without.

      - Chaffee, Ellen E. Rational Decision Making in Higher Education.

      - Ewell, Peter T. How to Acquire and Use Student-Outcomes Information.

      - Brinkman, Paul and Krakower, Jack. Comparative Data in Higher Education.

      These volumes, taken collectively, discuss data collection, analysis, and policy issues from the perspective of the senior administrator who will have to use the fruits of institutional research to make decisions. From that perspective, the "Executive Overview Series" provides useful insights into the types of information that presidents and vice presidents seek, and the ways in which they are likely to use that information.

   b. Christal, Melodie E. and Jones, Dennis P. A Common Language for Post Secondary Accreditation: Categories and Definitions for Data Collection.

      This volume not only clearly lays out a comprehensive listing of the data elements that need to be collected in order to describe the full range of activity within a higher education institution, but it also provides common definitions for analyzing those data elements in such a way that they lend themselves to interinstitutional comparison. Full time equivalent students and staff, credit hours, contact hours, fiscal and physical space measures should be developed from a common set of definitions, if effective and valid comparisons are to be made with peer institutions. This volume provides valuable reference points in establishing a common analytical language.

The NCHEMS references cited above, as well as a full catalog of their other publications, can be obtained by writing to the National Center for Higher Education Management Systems, P.O. Drawer P, Boulder, Colorado 90302, or by telephoning NCHEMS at 303-497-0390.

4. Kells, Herbert R. Self-Study Processes: A Guide for Post-secondary Institutions. Washington, D.C.: American Council on Education, 1987.

   Kells is the major authority on institutional self study processes, and has developed this comprehensive handbook to aid colleges and universities going through regional accreditation and/or professional program accreditation. The handbook clearly defines the data needs in a self study, and suggests ways in which the institutional researcher can play a central, critical role in the process.

5. A number of journals and on-going monograph series will prove especially helpful to new persons in the institutional research field:

   a. Journal of Higher Education. Published by the American Association for Higher Education, this journal provides scholarly treatment of contemporary issues in higher education. If scanning the environmental context in which postsecondary institutions operate is important, there is no better lens for doing so.

   b. Research in Higher Education. This is the scholarly journal of the Association for Institutional Research and provides a forum for communicating major, significant institional studies being undertaken by practitioners in the field. It is a central vehicle through which institutional researchers share concepts, methodologies, and results of studies, and for keeping abreast of the field.

   c. New Directions for Institutional Research. This is an ongoing series of monographs published by the Association for Institutional Research in cooperation with Jossey-Bass Publishers. Each volume is organized around a central theme, ranging from admissions marketing to retention to academic planning/evaluation to cost studies, and so on. Four volumes are published annually, each with a different editor, containing a collection of contributed papers from leading practitioners in the field. Available by subscription.

   d. ASHE/ERIC Higher Education Reports. Published jointly by the Association for the Study of Higher Education and ERIC Clearinghouse, each volume in the series examines current research on a contemporary issue in higher education. Topics which are central to institutional vitality, but which are not always "on the front burner" in institutional research offices are reviewed in this series. The volumes provide an opportunity to think in depth about such areas as faculty burn-out, student stress syndrome, federal and state obligations to higher education, etc. Seeds for in-house research projects frequently germinate from this series of monographs.

e. The Chronicle of Higher Education. Higher education's trade newspaper, it is an indispensable source of news as to how federal and state legislative and regulatory activity affect higher education. The Chronicle's "Fact File" is a fingertip source of normative data for inter-institutional and interstate comparisons of faculty and staff salaries, student achievement test scores, student migration patterns, educational philanthropy, etc. The publication is a must for effective environmental scanning.

f. NEAIR Institutional Research Information Series. The North East Association for Institutional Research has developed a series of monographs for the institutional research practitioner. The monographs, of which this volume is one, are published from time to time, and are highly pragmatic in their orientation. The emphasis is clearly on "how to..." A full listing of titles in the IRIS series can be obtained from the NEAIR Secretary, c/o Office of Institutional Research, Central Connecticut State University, 1615 Stanley Street, New Britain, CT 06050.

Professional Associations

Probably the most valuable resource available to the newcomer to institutional research are his/her colleagues who have been in the field for a number of years. Institutional researchers are researchers in the truest sense of the word. The practice of their profession rests on a foundation of sharing knowledge, concepts, ideas, methodologies, and study results. Validation of a study's findings can come only through sharing them with others in the field and providing the opportunity for replication of methodologies. Institutional researchers traditionally welcome newcomers into their professional ranks, and through contacts made at professional meetings, a colleague with an answer to that difficult problem is only a phone call away. The following professional associations are especially useful to institutional research personnel:

1. North East Association for Institutional Research. Serving institutional research professionals from Maine to Delaware, this is one of the largest regional associations in the nation. NEAIR's Annual Meeting, held each year in late October, is known for its wide variety of pragmatic, "how-to" workshops and paper presentations. The orientation of the Association is not theory (although theory is certainly a central topic at the Annual Meeting), but rather providing helpful, "nuts and bolts" assistance to colleagues. The NEAIR membership is a strong, highly communicative network that is an invaluable resource to the newcomer. Readers of this monograph who are not from the North East Region are urged to contact the Association for Institutional Research's national office (listed below) to obtain the name of the contact person in the regional association with which their institution is associated. NEAIR can be contacted by writing to the NEAIR Secretary, c/o Office of Institutional Research, Central Connecticut State University, 1615 Stanley Street, New Britain, CT 06050.

2. Association for Institutional Research. AIR is the national organization for institutional researchers. Its Annual Forum, held in late spring, is an opportunity to meet colleagues from across the country, as well as listen to and talk with leading scholars in the various areas of higher education research. The content of the Forum's papers tends more toward theory than practical advice on conducting institutional research. However, the latter function is achieved through a series of roundtable discussions organized around current research topics, and held throughout the Forum. Most important, AIR provides the opportunity to expand the network of contacts among institutional researchers from a regional to a national base. AIR can be contacted by writing to AIR Secretary, 314 Stone Building, Florida State University, Tallahassee, Florida 32306, or telephoning AIR at 904-644-4470.

3. Society for College and University Planning. SCUP is an organization that brings together institutional personnel involved in planning. In addition to institutional research persons, who make up a significant portion of the membership, academic vice presidents, deans, administrative vice presidents, budget personnel, and facilities personnel are all represented among the membership. SCUP focuses on planning issues running the gamut from enrollment and academic planning to budget planning to facilities planning. Institutional researchers will find SCUP meetings, and its journal, Planning, particularly useful in defining the quantitative needs of personnel typically associated with campus planning processes. SCUP can be contacted by writing to SCUP Secretary, 2026M School of Education Building, University of Michigan, Ann Arbor, Michigan 48109, or by telephoning 313-763-4776.

4. National Center for Higher Education Management Systems. In addition to the excellent publications described earlier in this chapter, NCHEMS provides a number of professional seminars at locations throughout the country on such topics as assessing student outcomes, linking planning and budgeting, and cost analysis in higher education, among others. The full range of NCHEMS services, as well as a discussion of membership benefits, can be obtained by writing to NCHEMS, P.O. Drawer P, Boulder, Colorado 90302, or telephoning 303-497-0390.

5. American Association for Higher Education. In addition to publishing The Journal of Higher Education, AAHE is the prime moving force in the country in the area of assessment. Its "Annual Forum on Assessment" provides an opportunity for leading scholars, practitioners, central administrators, and legislators to come together and discuss the latest research under the full umbrella of assessment activity. AAHE can be contacted by writing to AAHE Secretary, One Dupont Circle NW, Suite 600, Washington D.C. 20036, or by telephoning 202-293-6440.

6. Association for the Study of Higher Education. ASHE's Annual Meeting is an opportunity for institutional researchers and faculty scholars to come together to discuss central issues in research in higher education. ASHE is especially useful in framing studies relative to faculty activity, workload issues, the instructional process, and general assessment considerations. ASHE can be contacted by writing to ASHE Secretary, One Dupont Circle NW, Suite 630, Washington, D.C. 20036, or by telephoning 202-296-2597.

In-House Data Sources

A great deal of the data needed to conduct a solid, on-going program of institutional research already exists in most institutions of higher education. Students apply for admission, enroll, register for courses, receive grades, and eventually leave, either through graduation or attrition. Faculty and staff are recruited and put on salary. Goods are purchased, and bills get paid. All of these transactions exist in recorded form somewhere in the institution, in most instances in computerized format.

After thinking about the types of reports that the Office of Institutional Research wishes to develop (considerable discussion will be given to this thought process in Chapter Three), the next logical step is to determine which data already reside at the institution. A meeting with the Director of the Computer Center, with an eye toward obtaining relevant data element dictionaries, will prove fruitful. Which data elements are found in the Admissions Data Base, the Student Record System, the Course Registration File, the Personnel File, the Budget File? The answer to that question is generally pleasantly surprising. For those institutions which do not have centralized computing, there are a number of software packages available which are PC-compatible, and which enable systematic data analyses. These options are discussed elsewhere in this chapter.

Most colleges and universities in the United Stated participate in the Integrated Postsecondary Education Data System (IPEDS) reporting system on an annual basis. The IPEDS system requires an annual fall semester reporting of basic student, staffing, academic support, and fiscal data. These data are reported, arrayed by a number of subvariables, e.g., student and staff sex and ethnicity; faculty salaries, fringe benefits and tenure status; revenue sources and expenditure functions, etc. In order to complete IPEDS reports, many institutions have computerized reporting systems which are veritable gold mines to institutional research offices. The IPEDS reporting coordinator at a given college may be in the Office of Institutional Research, the Registrar's Office, the Academic Vice President's Office, or elsewhere in the institution. After identifying the coordinator, a thorough examination of the IPEDS reporting documents, whether computerized or hard copy, will provide a solid base for reviewing the institution's total management information system, and assessing which data elements essential to institutional research objectives are routinely collected in house.

Other data sources that are frequently overlooked by newcomers to institutional research, but which reside in the home institution include the following: President's Annual Reports and the annual reports of his/her senior cabinet; the institution's annual financial statement, and the periodic audit from an external accounting firm; institutional and program self-study documents; planning documents. Institutional research offices are usually involved in data analysis for many of these documents, but may not review the final product. It is prudent to obtain copies, not only for data verification purposes, but for subsequent use as data sources.

External Data Sources

Occasionally, it becomes necessary to collect data from sources other than the institution's computerized files. These externally collected data are generally acquired in one of two ways: a) in the form of a professionally prepared data set, or b) through proactive data collection activity (survey, interview, etc.), frequently through the Office of Institutional Research.

1. Professionally Prepared Data Sets. Entrepreneurs abound who are ready to provide institutional research offices with data sets addressing any number of institutional variables in virtually any computer-compatible format and medium imagineable. A trip to the vendors' corner at any professional meeting will quickly confirm this observation. Before purchasing a data set (they are not inexpensive), ask for the names of current users and determine how satisfied they are with the product. If the vendor cannot, or will not supply you with users' names, avoid the product.

   Three major vendors of prepared data sets have proven consistently reliable over time:

   a. IPEDS. The IPEDS system has been previously described. Some institutional researchers are unaware that the data reported by colleges and universities is in the public domain. Each year, IPEDS data for a given reporting year (generally two years behind the current year) becomes available on computer tape. Separate tapes are produced for the major IPEDS reporting categories: students, personnel, fiscal data, etc. The tapes are accompanied by a file layout, and can be analyzed using any quality statistical software package (discussed later in this chapter). Thus, comparison is possible of institutional data for that reporting category with data from any other institution in the nation participating in the IPEDS program which, as noted earlier, is the vast majority of postsecondary institutions. The tapes are moderately expensive, but where rigorous interinstitutional comparisons are needed, the cost is worthwhile. There is an alternative to purchasing the tape. Each state has an IPEDS coordinator, usually within the State Department of Higher Education. Commencing in 1989, the State IPEDS Coordinator receives a complimentary set of tapes which he/she can make available to participating institutions. Such an arrangement may well be worth a phone call. The Center for Educational Statistics, within the U.S. Department of Education, is the coordinating agency for IPEDS. Their address is 555 New Jersey Avenue NW, Washington, D.C. 20208, and the telephone number is 202-357-6374.

b. The College Board Annual Survey of Colleges. Imagine having a computer tape that lists critical institutional characteristics for virtually every college and university in the country. Headcounts by sex, by student level, by full/part time attendance status, by ethnicity, etc.; tuition charges; residence hall data; financial aid data; degree programs offered; program accreditations; support program data; admissions data - these are but a few of the data elements available for all institutions participating in the Annual Survey of Colleges. The data are supplied on tape, with tape layout for statistical software packages. The tape is expensive, but is a worthwhile purchase every few years to obtain a comprehensive profile of competitor institutions. Information about this service can be obtained by writing to The College Board, 45 Columbus Avenue, New York City, New York 10023, or telephoning 212-713-8043.

c. National Data Service for Higher Education. John Minter and his associates identified the typical interinstitutional comparisons done using IPEDS data, and the College Board Annual Survey of Colleges, and have isolated those comparisons into a series of analyses, generally over a multi-year time period, and grouped according to Carnegie institution type, (e.g., research and doctoral universities, comprehensive colleges and universities, liberal arts colleges I, and liberal arts colleges II), each type further separated into public and independent. The analyses cover financial statistics, enrollment statistics, library statistics, institutional characteristics, compensation statistics, degrees awarded, academic and support programs, and admissions statistics, among others. Minter supplies the data in either hard copy or diskette, at a relatively modest price.

Minter's data sets save time in developing analytical computer programs to run against computer tapes, and have the distinct advantage of providing trend data in a single source document at an attractive price. The major disadvantage comes when comparing the home institution to more than one Carnegie institutional type, e.g., to both public and private doctoral research universities. At that point, multiple volumes or diskettes may have to be purchased, and analysis becomes somewhat more cumbersome. In the instance of fiscal analyses, the user will have to become familiar with the principles of ratio analysis (not a bad idea anyway, and one that will be addressed in Chapter Three). Price and trend data may override any inconvenience.

A complete catalog of Minter data sets can be obtained by writing to National Data Service for Higher Education, 2400 Central Avenue B-2, Boulder, Colorado 80301, or by telephoning 1-800-444-8110.

2. Institutionally-Initiated Data Collection

There are occasions when the data needed are not commercially available, and the only way to get them is to go out and collect them. The vehicle for such data collections is generally some form of survey. When faced with a data collection project that requires a survey instrument, two courses of action are available: purchase a commercially prepared instrument or develop an instrument in-house.

a. As with commercially prepared data sets, packaged survey instruments are everywhere. Depending upon the specific institutional research need, it is recommended that two vendors be contacted as a starting point. Each specializes in learner needs assessment surveys, student satisfaction surveys, withdrawing/non-returning student surveys, alumni surveys, etc. Moreover, each has instruments to measure cognitive learning gains. Each provides normative data by institution type to assist in interinstitutional comparisons. Full catalogs of commercial instruments are available from each:

American College Testing Program
P.O. Box 168
Iowa City, Iowa 52243
Telephone: 319-337-1000

Educational Testing Service
Princeton, New Jersey 08541
Telephone: 609-734-1105

Two other specific instruments find widespread acceptance and use in higher education:

1. Alexander Astin's Cooperative Institutional Research Program, based at the University of California at Los Angeles and co-sponsored by the American Council on Education, developed the "Student Information Form." This instrument collects demographic and attitudinal data from new students, usually first-time freshmen. These data are then moved to a national pool and participating institutions receive normative freshman profiles for all college students and for those specifically attending similar types of institutions. Specimen copies of the "Student Information Form", and other CIRP materials, may be obtained by writing to The Higher Education Research Institute, University of California at Los Angeles, Los Angeles, California 90024.

2. C. Robert Pace, from the Center for the Study of Evaluation at the University of California at Los Angeles, developed the College Student Experiences Questionnaire, which assesses how students spend their time in course work, in the library, in contacts with faculty, in extracurricular, social, and cultural activities, and in taking advantage

of other college facilities and opportunities. It provides the respondent with an opportunity to estimate gains resulting from the college experience. In an era of emphasis on value added assessment, this instrument, complete with normative data, is quite useful. Specimen copies of the College Student Experiences Questionnaire may be obtained by writing to Center for the Study of Evaluation, Graduate School of Education, University of California at Los Angeles, Los Angeles, California 90024.

Other commercially prepared instruments can be seen and evaluated at most professional meetings.

b. In-House Surveys. Anyone associated with social science research is aware of the issues of validity and reliability associated with locally prepared survey instruments. Those issues need not be described here other than to say that measures of validity and reliability should be obtained for instruments developed by Offices of Institutional Research. Experience shows that audiences view the credibility of data on a proportional scale with the extent to which they are hearing what they want to hear. If the data show something other than the anticipated result, studies have been attacked on technical issues such as instrument reliability and validity where no other weakness exists. There is wisdom in covering all bases.

   If there is no alternative to locally preparing a survey instrument, readers are directed to an excellent resource. The North East Association for Institutional Research inaugurated its monograph series with a volume, Survey Research: What Works for the Institutional Researcher, by Linda M. Suskie. The volume contains a wealth of practical tips on developing a good instrument, enhancing return rates, and analyzing data. Examples of good instruments are accompanied by equally useful examples of bad instruments. Copies of the monograph can be obtained for a nominal price by writing to NEAIR Secretary, c/o Office of Institutional Research, Central Connecticut State University, 1615 Stanley Street, New Britain, CT 06050.

Analytical Tools

Choosing the best tools for data analysis can be a confusing process. Mainframe or microcomputer? Spreadsheet or statistical software package? Word processing and graphics possibilities? The purpose of this section is not to recommend specific products, but rather to discuss the pluses and minuses of various options in the selection of appropriate analytical tools.

1. Mainframe versus microcomputer: When many current institutional researchers first entered the profession, the choice between mainframe and microcomputing was truly dichotomous. Such is no longer the case. The choice, more often than not, depends upon the size of the task at hand. Most personal computers, or microcomputers,

possess the capabilities that were offered only by large mainframe machines as recently as 5 years ago. It is a truism that most computing requirements in a contemporary institutional research office can now be handled on a desktop microcomputer. The mainframe machinery is reserved essentially for large "number crunching" tasks. It is not uncommon to use the desktop microcomputer for sophisticated enrollment projections, fiscal analyses, and routine statistical analyses where the number of cases in the analysis, and the variables within the data set, are manageable. "Manageability" simply refers to the capacity, in terms of staff time and computer disk space, to collect and enter data into the software package being used in the analysis. This is a judgement call on the part of the researcher; experience shows that most projects are appropriate for the microcomputer's capabilities. Specific examples of desktop analyses will be given below in the discussion of computer software.

"Number crunching" refers to situations in which large data sets are passed through complex statistical operations. For example, one might wish to look at all students in a given college or university and determine the extent to which high school grades and SAT scores predict actual performance in the freshman year. One might wish to further analyze the predictive capability on the basis of sex, ethnicity, academic major, and any of a number of other demographic traits. The multiple regression analysis herein is not trivial, and requires more computing time and disk space, the larger the institution and study population. The prospect of manually entering data for each discreet data element for each discreet student is overwhelming. Clearly, it is preferable to extract data from the institutional student record system, residing on the mainframe, and to run the data set through its statistical paces using a mainframe statistical package.

A recent technological advance has brought about a happy medium between the two extremes described above. Software now exists that enables the desktop microcomputer to act as a mainframe terminal, permitting the researcher to select specific data elements and cases from large mainframe databases, develop a smaller data subset, and download that subset to the microcomputer's desktop memory for analysis, thereby freeing the mainframe for larger analytical tasks.

The newcomer to institutional research would be wise to invest time in working with the computer center staff or other consultants to determine the capabilities of both mainframe and desktop machines, and the extent to which it is possible for the two to talk to each other.

2. Software: Inasmuch as microcomputers provide most of the analytical capability needed by institutional research offices, this discussion of software will center on options available for enhancing the microcomputer's capabilities. Discussion of mainframe software is best left to the computing staff at each respective institution. In addition to the software options discussed below, the reader is encouraged to pursue additional possibilities in trade journals such as PC, Personal Computing, etc..

a. Electronic spreadsheets: As the name implies, the electronic spreadsheet is a vehicle for arraying data on a computer screen and for establishing mathematical formulae to describe the relationships between and among the data cells on the spreadsheet. Originally used primarily for financial analyses, the electronic spreadsheet has gained favor among institutional researchers as the tool of choice in performing other types of studies. Electronic spreadssheets lend themselves particularly well to forecasting functions. Common applications include admissions and institutional enrollment projection models, as well as tuition and other revenue forecasting models.

While not advocating any single product, it is safe to say that the Lotus Corporation is the major force in the electronic spreadsheet market. Whether it be 1-2-3. Jazz, Symphony, or any of the other items in the Lotus line, the quality and support of these spreadsheets is difficult to surpass. Each comes with a self-paced tutorial, and most colleges and universities offer in-house training on advanced use of electronic spreadsheets. The Lotus products come with word processing, graphics, and basic statistical capabilities. Moreover, the Lotus products can be used in conjunction with a wide range of other statistical and word processing software packages. The Lotus corporation produces its own magazine, aptly named Lotus, which offers practical tips in developing and enhancing spreadsheet skills, while also providing a forum for a multitude of vendors selling Lotus compatible products.

b. Statistical software packages: There is a multitude of software packages on the market which enable sophisticated, high powered statistical treatment of data. It is arguable that, when all is said and done, most institutional researchers use either SPSS or SAS. Both SPSS (Statistical Package for the Social Sciences) and SAS (Statistical Analysis Software) are available in both mainframe and microcomputer versions. Each is thoroughly documented and comes with full support and training opportunities. In developing arguments for one package over another, computer center personnel use cost statistics, CPU efficiency, etc., to underpin their positions. Quite candidly, the choice as to which package is selected for use frequently comes down to which package was used in writing the researcher's thesis or dissertation, and with which he/she is most familiar.

Each package allows the reader to prepare, define, and enter data into a data set for analysis. Data transformations, weightings, and other manipulations are easily achieved. Descriptive statistics and basic frequency analyses provide base line information on data sets. From there, crosstabulations and measures of association, measures of central tendency, tests for differences between means, parametric and nonparametric correlational measures, analysis of variance, and multiple regression statistics are available from both packages. Moreover, each package contains a basic graphics capability, although many users opt to execute graphs and charts from a spreadsheet-based graphics package, or from a graphics package that has been independently loaded into the computer's memory.

Whether the software package selected is SPSS, SAS, or one from another vendor, it must have the capability to do not only base line descriptive and simple correlational statistics; it must be able to move into higher order inferential statistics. As important, the package should enable the definition and manipulation of data and variables. Because they capture all of these capabilities in a single package, and do so in a relatively "user friendly" manner designed for the non-programmer, SPSS and SAS are the leaders in the field.

c. Word Processing: The key to getting analytical reports and institutional studies read by senior campus administrators is to make them look polished, professional, and attractive. Word processing has evolved into more than computerized typing capabilities. Indeed, outfitting the personal computer with the appropriate word processing software package enables one to move into the arena of "desktop publishing". Highly stylized printing, complete with multiple font settings, bold print and italics, color graphics and basic arithmetic functions, and even "clip art" for added illustrating possibilities, are commercially available at modest cost. When married to a quality laser printer, a good word processing package results in a professional appearing report that invites reading. Among the leaders in word processing are WordPerfect for IBM and IBM compatible machines, and MacWrite for the Apple Corporation's Macintosh series of personal computers. A good trade journal will describe these and other options to the prospective buyer, as well as detailing the full range of capabilities of word processing.

Some Final Thoughts on Getting Started

This chapter was intended to provide the reader with some useful information on identifying reading materials, collegial networks, and essential analytical tools for developing institutional research skills. Chapter Three will discuss concrete data collection and analytical strategies tied to the basic "open system" approach to institutional research described in Chapter One. But before moving to concrete approaches to the research process, some broader strategic considerations bear consideration. For want of a better term, let us refer to them as the "Five Commandments of Institutional Research":

First Commandment: **Make certain that the Office of Institutional Research plays a central role in controlling and coordinating campus databases.** While "ownership" of databases should reside in the offices primarily responsible for data collection and entry (e.g., student records in the Registrar's Office, financial data in the Treasurer's Office, etc.), Institutional Research should be the central actor in the coordinating process. Coordination refers to such activities as determining when to freeze official campus data bases (i.e., extract from the live computer files those fixed data sets that will be used for all internal, external, and historical reporting in all areas of operations), as well as reviewing and checking data integrity through routine reporting processes. It is particularly helpful if Institutional Research is presidentially anointed as the "official" clearinghouse for all data used in internal and external reports developed by units across the campus.

Second Commandment: **Collect data from primary sources.** Use existing data elements within established data bases, wherever possible. The Registrar's Office has already collected basic demographic information from students at the time of initial registration (age, sex, ethnicity, permanent residence, current and cumulative grade point average, etc.), and very likely asks for verification of the same data during each subsequent registration. These are reliable data already residing in the student record system. The same is true for admissions data (e.g. high school grades, standardized test scores, sending high school, etc.), personnel data (e.g. faculty rank, tenure status, highest earned degree, etc.) and a myriad of other standard data elements cutting across all campus functions. These comments lead to two corollaries to the Second Commandment:

a. **Never ask for data that you already have.**

b. **Use surveys only as a last resort, and only as a vehicle to collect data to which there is no other access.**

Third Commandment: **If you absolutely must use a survey, follow these guidelines.**

1. Use a professionally prepared, "canned" instrument from a reliable vendor, as opposed to using a "home-grown" instrument. Student satisfaction surveys, attrition surveys, alumni surveys, etc. all focus on essentially the same issue from year to year and from campus to campus. Vendors understand this and have developed standardized survey forms to address generic issues, and in most instances, provide the opportunity for campuses to ask several institution specific questions on the commercially prepared survey form.

   The distinct advantage to commercial surveys is that the vendor has addressed such technical problems as instrument reliability and validity. Surveys occasionally bring bad news to the campus community. Food service is awful. Academic advising is terrible. The college experience has nothing to do with the "real world" of post-graduation activity. If an analysis cannot be attacked on anything else, the technical construction of the survey becomes vulnerable. A commercially prepared instrument removes that vulnerability. Additionally, it offers the opportunity to compare institutional data with national normative reference groups and to accurately assess where the results stand against those of other colleges and universities. Home grown instruments offer none of these advantages, and require significant investments of time and energy to properly construct.

   While certain circumstances leave no alternative to a locally prepared instrument, that judgement should be made only after a thorough exploration of what is commercially available. Specific examples of commercial instruments will be discussed in Chapter Three.

2. Keep it short and sweet. A basic tenet of survey research is that the return rate is inversely proportional to the length of the survey. Ask for all the information that is needed. But remember that the best survey fits on a stamped, addressed postcard. A one to two page survey is acceptable. Beyond that, return rates become a real issue.

3. Ideally, the Office of Institutional Research coordinates survey administration on campus. The operative word here is "ideally". Ad hoc surveys proliferate across campus. The notion that any data need can be solved with a survey is pervasive. Consequently, members of the campus community, particularly students, are surveyed to death. Repeated use of surveys has a definite negative impact on return rates. To the extent that Institutional Research can eliminate multiple surveys to the same individual through coordination of survey administrations, return rates will prosper.

Fourth Commandment: **Keep data analyses simple.** Most reports and analyses are targeted at senior campus administrators. These are busy individuals who, for the most part, have forgotten such pithy concepts as levels of significance, degrees of freedom, null hypotheses, etc. They are interested in the study's findings and their implications for the campus. It is worthwhile to remember that descriptive statistics are easier to understand for the lay person than inferential statistics. And it is equally worthwhile to remember that executive reports need not contain a full description of statistical treatment so long as the researcher has them in the "back pocket" when asked the details of the study. The study can simply say that, "Standardized Test Scores appear to add little to high school grades when making the decision to admit or not admit an admissions applicant", without going into a detailed discussion of stepwise multiple regression. But having said that, make certain that the regression equations to back up the statement are at hand, when requested.

Fifth Commandment: **Keep reports brief and to the point.** Quite simply, remember that a two page Executive Summary is more likely to be read than is a 15 page report. If written well, the Executive Summary will peak the reader's interest and invite him/her to delve into the full report. A parallel guideline is the time worn phrase, "A picture is worth a thousand words". Wherever possible, text should be discarded in favor of a graph or a well conceived data table. Brevity and clarity are rewarded by senior administrators; ponderous analyses make marvelous dust gatherers on an out of reach shelf.

The resources to perform effective institutional research are now in place. Chapter Three will discuss concrete strategies for utilizing those resources in establishing a comprehensive institutional research program.

CHAPTER THREE: STRATEGIES FOR IMPLEMENTING A COMPREHENSIVE INSTITUTIONAL RESEARCH PROGRAM

Let us begin this chapter with the premise that there is no single, best program of institutional research. The quality of a program is a function of its relevance to the institution. Having said that, this chapter will describe the institutional research program currently in place at the University of Delaware, and the thinking that drove its development. While parts of the Delaware program may not be appropriate for the reader's institution, the rationale that went into developing the program transcends institutional boundaries. Hopefully, the discussion of that rationale will be as useful to the reader as the institutional research strategies themselves. It should again be emphasized that the discussions in this chapter can and should be modified to meet the specific needs of the reader's institution.

The University of Delaware's institutional research program is predicated on the conceptual framework described in Chapter One. Chapter Three will take each of the components of the "open system" separately and will discuss research strategies for quantifying and measuring the component. The reader is reminded that "inputs". "process", and "outputs", as components of an open system, are not assessed and measured in isolation; it is their relationship with the organizational environment that is crucial. The research strategies described in this chapter will embody that context.

INPUTS

Chapter One described those "raw materials" (i.e., students, faculty, fiscal and physical resources, etc.) essential to the operation of a college or university, and suggested appropriate measures for quantifying them. Consider the following strategies for operationalizing those measures:

Students

During the 1970's, colleges sprouted up like weeds. The Post-World War II baby boom was college-bound, and there were not enough seats available to accommodate those who wished to pursue a postsecondary education. Institutions had but to open their doors, and the competition among prospective candidates for admission was ferocious. The 1980's brought a reversal of that pattern. The college-bound high school pool had shrunk, in some cases by as much as 40%, from the levels of the previous decade. Colleges and universities are now challenged not only to admit students with reasonable chances for success, but because of the competition within the admissions marketplace - it is now a "buyer's market" - it is essential for an institution to know its competitors and to understand why some students who have been offered admission to the institution choose a competitor. At the University of Delaware, two institutional research projects, the College Selection Survey and the Admissions Monitoring Report, are crucial to the

enrollment management process. A third, the ACE/UCLA Cooperative Institutional Research Program's "Student Information Form", enables the institution to profile its entering freshman class with respect to educational plans and attitudinal and behavioral characteristics, and to compare that profile with those at similar institutions.

1. College Selection Survey: The University of Delaware was like most other institutions with respect to growth during the 1970's. It nearly doubled in size from 8,000 undergraduates in the early 1970's to over 14,000 in the late 1980's. Because Delaware is a small state with a limited population base, most of the enrollment growth was based on an expansion of the non-resident student base. When the author of this monograph arrived at the University in 1985, little was being done to monitor the college-bound high school pool in surrounding states, particularly with respect to how those high school seniors selected a college. Consequently, the College Selection Survey, which is a variation on a market research strategy in use at many colleges and universities, was initiated at the University of Delaware.

   The College Selection Survey is annually administered to a sample of all students to whom an offer has been extended for admission to the University of Delaware. In general, the Survey seeks to answer three basic questions:

   1. Why do some students choose to attend the University of Delaware over other colleges and universities?

   2. Why do other students, to whom the University has extended an offer of admission, choose to attend another institution?

   3. What are the significant differences between the two groups of students?

   A copy of the College Selection Survey is found in Appendix A. Part One asks for general information which essentially serves as a variable array along which subsequent analyses are performed. Student sex, ethnicity, permanent residence, academic preparedness as measured by self-reported high school grade point average and SAT scores, are useful selection criterion for analysis, as is the specific College within the University to which the student applied for admission. Also useful is the number of schools to which the student applied. These variables enable the University to analyze the college selection decision in a manner that defines how the institution is faring against competitors among subsets of applicants to whom the University has a special commitment (i.e., in-state students and minority students); how the institution fares among students of varying levels of academic quality; and how applicants college selection patterns differ among the eight undergraduate Colleges within the University.

   Part Two begins to yield the information that helps the University to understand how its applicants are selecting a college. The respondent lists the top three institutions, in order of choice for attendance, and indicates whether or not an offer of acceptance and/or an offer of financial aid was extended, and which institution he/she plans to

attend. This tells the University a) who the competition is; b) where the University falls within the hierarchy of choice; c) to which institutions the University is losing students as well as where the University is gaining students because another school rejected them; d) the role of financial aid in the selection process. The data herein enable analysis of how the University fares in head-to-head competition with specific institutions among all accepted applicants, and among subsets thereof, as defined by the variables in Part One.

Part Three asks respondents to compare the University with the school they will attend, if not Delaware, or would have attended, had they not chosen Delaware. The competitor is identified by name, and the comparison is made along such institutional characteristics as academic quality, general reputation, faculty quality, cost, treatment of prospective students, etc. Respondents rate each characteristic for the University and the competitor, and indicate how important the characteristic is in shaping the college selection decision. The resultant inter-institutional comparisons are crucial because they reflect the way that the University is perceived in the marketplace. The perceptions may or may not be accurate, but are significant because they are real and current. Such comparisons become the basis for admissions marketing strategies in developing publications and recruitment strategies.

Part Four provides key data to supplement what was learned from the applicants' perceptions of the University in Part Three. Respondents indicate which information sources were used to learn about the University, the impact (positive or negative) of the information received from the source, and the importance of that source in shaping the college selection decision. Information sources range from University publications and Admissions Office activity to informal contact with friends, guidance personnel, etc. The data herein are especially useful when Part Three yields a pattern of misperceptions about the University. Appropriate marketing strategies can then be targeted to specific information sources.

The College Selection Survey is a particularly useful tool for understanding and coping with the admissions marketplace in a highly competitive era. The University made the decision to develop its own survey instrument after determining that its information needs could not be satisfied by a commercial vendor (e.g., Educational Testing Service's "Accepted Student Questionnaire"). Analysis is done using basic descriptive and correlational statistics in the SPSS statistical software package. The resulting analyses over time have enabled the Admissions Office to customize recruiting strategies for different market components and to better position the University within the overall marketplace. Whether using a commercial or locally prepared instrument, institutional research offices attempting to assess the availability of student inputs in a highly competitive environment will profit well from the analytical thinking and processes described above.

2. Admissions Monitoring Report: While the College Selection Survey yields important information about how students think and behave in applying to colleges and universities, equally important are trend data that compare annual cycles of admissions

activity. There are three central components to any admissions cycle: the number of applications, the number of offers of admission, and the number of paid deposits. These components lend themselves to development of two key ratios: offers of admission as a percentage of total applications (commonly referred to as "offer rate"), and paid deposits as a percentage of total offers (commonly referred to as the "yield rate"). Offer rates and yield rates are crucial to enrollment planning. If yield rates are relatively stable, it is possible to determine the number of offers of admission that must be made to bring in the desired class size. Similarly, trend data in offer rates suggest the number of applications that must be achieved to obtain a pool of offers of sufficient size to yield the desired paid deposits. For example, if the target freshman class size is 3,200 and yield rates historically have approximated 43%, then a minimum of 7,742 offers would have to be made (divide 3,200 by 0.43 to arrive at 7,742). Similarly, if offer rates have historically clustered around 55%, then a minimum of 13,530 applications would have to be received to produce the offer pool of 7,742. Admissions personnel use these data as benchmarks for annual recruitment planning. The process seems straightforward, but becomes tricky, and monitoring is essential, when the institution is attempting to adjust the "quality" of the incoming freshman class. Appendix B shows a three year trend analysis of admissions activity, in which applicants are arrayed by predicted freshman grade index (a function of high school grades and standardized test scores), and SAT verbal and math scores. It is evident that yield rates vary significantly across intervals of student quality. Any attempt to increase the number of better academically prepared students will require adjustments in the number of applications and offers. In addition to student quality measures, admissions monitoring at the University of Delaware is also done by in-state/out of state applicant residence, with an eye toward maximizing the number of qualified Delaware resident freshmen. Only solid trend data can provide guideposts for establishing application and offer targets.

The Admissions Monitoring Report is produced weekly from September through June, and allows a comparison of offer and yield rates at comparable points in time within the cycle over a period of years; the table can be produced for any of the 52 weeks in the cycle. The report can be produced on an electronic spreadsheet by downloading appropriate data elements from the Admissions Database on the mainframe computer, or by using the report writing capability in the mainframe statistical software package, in this instance SPSS. The capability to accurately predict the size of incoming freshman classes is essential to effective management of student body enrollments. That accurate prediction can only be achieved with effective monitoring of admissions activity.

3. CIRP "Student Information Form": It is useful, periodically, to assess the extent to which a given institution's freshman class is similar to, and different from the freshman classes throughout the nation in general, and at institutions similar in size and mission to one's own. Alexander Astin, of the University of California at Los Angeles, in 1968 developed the Cooperative Institutional Research Program. CIRP, as it is called, is a voluntary consortium of colleges and universities throughout the country who

administer the "Student Information Form" to new students, generally first time freshmen, and submit the completed forms to Astin and his associates for analysis. The research staff at UCLA annually produces a national "Profile of the American Freshman", and provide to participating institutions the national norms for responses to the survey items, by total, and by institution type (i.e., university or four year college, public or private, etc.). The instrument collects basic demographic and attitudinal data, as well as information on educational and career plans. It is a useful tool for profiling freshmen classes at periodic intervals to determine the extent to which demographics (i.e., family income, religious preference, parental education levels, etc.), educational aspirations, and attitudes have changed. These, in turn, enable recommendations for modifications to the existing programs and services intended to carry the freshman class through its four (or more) years at the institution. The Student Information Form is moderately expensive to purchase and have processed. Experience suggests that annual administration of the instrument is not necessary; the data do not shift dramatically from year to year. Administration of the survey at four year intervals, coinciding with the graduation of the last cohort surveyed, is a viable strategy. A specimen copy of the CIRP materials can be ordered from the address provided in Chapter Two.

Personnel

Assessing an institution's ability to acquire "inputs" in terms of personnel is somewhat more difficult than for students. The U.S. Bureau of the Census provides manpower data describing the availability of individuals in specific job categories. Of particular importance are the availability data produced by the Office of Institutional Research at the University of Colorado at Boulder, and available to colleges and universities across the nation for a modest charge. These data indicate the number of Ph.D.'s within a broad spectrum of academic disciplines, and arrayed by ethnicity. The Colorado availability data are based upon the decennial census and can be supplemented with annual data (somewhat less comprehensive in nature) produced by the National Center for Educational Statistics in Washington, D.C. These data-sets are benchmarks for faculty affirmative action assessments. As noted, the U.S. Bureau of the Census can provide availability data for non-faculty job titles.

The capacity of an institution to attract available individuals is initially a function of the competitiveness of the salary and fringe benefit package. (Retaining personnel is a "quality of life issue", which will be discussed later in this chapter). How competitive are institutional compensation practices? Several sources can assist in answering the question. Average faculty salary and fringe benefit packages are reported by institution and by academic rank each Spring in Academe, the journal of the American Association of University Professors. Normative data for institution type and for geographic region are provided. The data are rich, and enable general and institution-specific comparisons of compensation packages. A sample comparison, using AAUP data, is shown in Appendix C. Copies of the AAUP salary analysis, entitled "The Annual Report on the Economic Status

of the Profession", can be purchased annually from AAUP, Suite 500, 1012 14th Street, N.W., Washington, D.C. 20005. The data in Academe are averages for all faculty, for both public and private institutions, and provide an excellent assessment of an institution's recruiting bargaining position within the faculty marketplace.

Data on non-faculty professional salaries are collected and published each year by College and University Personnel Associates (CUPA), located at 1233 20th Street, N.W., Washington, D.C. 20036. Most Personnel Offices are members of CUPA and receive the salary analysis each year. Non-members can purchase the analysis. The Office of Institutional Research at the University of Arkansas does a similar study of non-teaching professional salaries at colleges and universities, and analyzes them by geographic region. The CUPA study and the Arkansas study provide the non-teaching professional equivalent of the AAUP data for faculty. Data on non-professional occupations are best obtained from the local branch of the State Department of Labor.

Revenues/Facilities

Financial "inputs" into an institution are essentially revenues. The extent to which an Institutional Research Office becomes involved in monitoring revenue streams varies from institution to institution. A strategy for a comprehensive revenue monitoring program is discussed in the "Process" portion of this chapter. In assessing financial inputs, however, Institutional Research should minimally assemble trend data on revenues, by general categorical type. Appendix D is a typical revenue and expenditure analysis of the sort seen in many institutional factbooks. Appendix E is similarly a factbook table on facilities. Institutional Research's involvement in these areas need not be extensive in order to be a useful monitoring of input levels.

PROCESS

"Process" measures describe what the institution is doing with the inputs that it has acquired. This portion of the chapter deals with the University of Delaware's process measures. Let it be stated at the outset that the reader should view these measures as a starting point for considering his/her own process measures. More than with inputs or outputs, process measures fluctuate and change with shifting demands on the institution. Today's list of measures may be history tomorrow. Nonetheless, certain of the underpinnings of these measures - retention of students and staff, efficient use of resources, and maximizing productivity - are constants that will continue to drive the thinking about how best to measure process.

Students

Most Institutional Research Offices are engaged in collecting data on baseline measures of processing of students. Grade and cumulative grade point distribution reports, degrees

granted reports, etc., extracted from the Student Record System, are indigenous to virtually every Institutional Research Office in the nation. The Student Record System can further be massaged to yield an induced courseload matrix which shows how student majors from a given academic department are consuming courses from other departments. These are useful measures of student processing; they tell the institution that students are, indeed, moving through the curricula, are taking a reasonable distribution of courses in and outside of the major department, are being awarded grades, and are getting degrees. This type of "process" institutional research is done virtually everywhere, and a newcomer to the field will have little difficulty in getting assistance in this sort of research. This portion of the chapter will focus on those forms of student process research which give a texture to the experience that produces grades and degrees. Only when the fullest possible picture of student processing comes into view can an institution see if it is truly changing a student in meaningful ways.

Cohort Survival Analysis: Students are recruited to an institution to earn a degree. Perhaps the most fundamental measure of student process is the determination of what extent this objective is fulfilled. Institutional research offices have traditionally used cohort survival analyses to monitor student retention, attrition, and graduation patterns. Appendix F is a cohort survival analysis for 10 separate freshman cohorts at the University of Delaware. The table displays dropout and retention rates for each year following admission, as well as graduation rates. For example, of the 3,341 freshmen admitted in Fall 1979, 83.2% persisted into the sophomore year; 16.8% were lost to attrition during the same time. The data show that by the time that the Fall 1987 freshman cohort entered the University, the attrition rate had dropped to 12.8%. The graduation rate for the Fall 1979 cohort finished at 67.3%, better than the national average. Subsequent cohorts graduate nearly two out of every three individuals who entered as freshmen.

These data are essential, not only for telling the University the extent to which it fulfills its mission of graduating all entering freshmen; the data are critical to solid enrollment planning. Stable attrition and retention rates enable enrollment planners to arrive at reasonable estimates of the number of entering freshmen who will remain at the institution until graduation, and the length of time that it will take to get there. By reading the columns in Appendix F from top to bottom, trend data for attrition and retention are available for each of the four to five years that an entering freshman cohort remains at a college or university. By examining these data, and averaging them in a fashion that is sensible, the researcher can compute attrition, retention, and transition (movement from one fall to the next) coefficients for a basic student flow model. Student flow is the key to effective enrollment management. It answers three questions:

1. Of those students brought into the institution, how many will remain until graduation?

2. How many will leave the institution without graduating?

3. For those persisting, how long will it take to graduate?

Reliable answers to these questions, based on cohort survival analysis, enable reliable estimation of student body size at any given point in time. These estimates, in turn, are essential for accurate revenue forecasting, staffing projections, etc. Cohort survival is a basic tool in institutional research, and one with which the newcomer to the field should quickly become acquainted.

Appendix F is produced annually on an electronic spreadsheet by simply extracting from the Student Record System the number of students with a given Fall semester entry date, for example Fall 1985, who are a) currently registered and/or b) graduated. These numbers are fed into the spreadsheet which automatically updates the table. Tables similar to Appendix F are produced separately for sex, ethnicity, in-state/non resident status, and matriculation into each of the University's ten colleges. The latter breakouts enable the Office of Institutional Research to effectively discuss enrollment planning for discreet subsets within the student body for whom attrition patterns may be excessively high, and which might otherwise be masked in a general analysis of all students.

While these data are essential, it is equally important to understand the reasons why students persist at an institution while others leave without graduating.

Student Satisfaction Analyses: Cohort survival analysis generates extremely useful data on the numbers of students who persist through graduation, and the number who fail to do so. Cohort survival data do not delve into the reasons why students choose to stay or leave. To address this issue, most institutions turn to student satisfaction analyses. The extent to which students use and are pleased with the programs and services offered by a college or university is a major force in shaping their decision to remain at the institution, or to leave and pursue their studies elsewhere. The data collection instruments in student satisfaction analyses are frequently locally prepared, although Educational Testing Service and the American College Testing Program, among other vendors, produce reliable, field-tested survey instruments. The choice between a commercial or locally prepared survey will be dictated by the information required. The advantages, especially with respect to normative data, of using a commercial instrument over a locally prepared survey were discussed in Chapter Two.

The University of Delaware utilizes the American College Testing Program's "Student Opinion Survey". The instrument is relatively brief, attractively presented, and easy to score. It is divided into four sections. Section One asks for basic demographic data from the respondent. Section Two arrays 23 programs and services typically found at a college or university, ranging from academic advising, library, computing, and other academically oriented services to health service, parking, and day care. Respondents are asked if they used the service, and if so, how satisfied they were. This is critical to accurate analysis; it enables the researcher to discard responses from those who did not personally use a service but nonetheless assign it a satisfaction rating based on hearsay. Section Three lists 42 separate characteristics of the college environment and asks for satisfaction ratings. The characteristics fall within six major groupings: academic (e.g. availability of faculty, faculty attitudes toward students, quality of academic advising, etc.); admissions (e.g., general admissions procedures, availability of financial aid, etc.); rules and regulations (e.g.,

student voice in college policies, discipline code, etc.); facilities (e.g. quality of classrooms, laboratories, study areas, etc.); registration (general registration procedures, billing and fee payment policies, etc.); and a general category (e.g., concern for students as individuals, attitude of non-teaching staff toward students, etc.). Section Four is composed of 30 items locally prepared by the home institution. Issues not addressed by American College Testing on the pre-printed form can be developed in Section Four. Finally, there is space in Section Four for the respondent to add open-ended comments on the general topic of student satisfaction. A specimen set of Student Opinion Survey materials can be purchased from American College Testing at the address provided in Chapter Two.

The University of Delaware utilizes the survey processing services offered by American College Testing. For a reasonable fee, the University receives from ACT a "hard copy" computerized analysis of the survey responses, national norms for those responses arrayed by institutional type, a computer tape of the University's data, and a file layout of the tape for massaging with a statistical software package. Other vendors provide similar services for their instrumentation. The Office of Institutional Research then looks at the mean scores for institutional data and compares them with national norms, testing for statistically significant differences on responses to each item. The results of this analysis constitute the first of two reports on the Student Opinion Survey. The second comes months later. The survey is administered in the Spring semester. The Office of Institutional Research waits until the following Fall and, using the student identification numbers provided by respondents, separates the respondent pool into two groups - respondents who completed the survey in the Spring and are registered in the Fall, and those who completed the survey but who are not registered and did not graduate. The responses from "persisters" and "attriters" are then analyzed for statistically significant differences.

The data yielded from the Student Opinion Survey have proven extremely useful. Data comparisons with national norms allow the University to ascertain whether response patterns from a given response pool are typical of all students in similar institutions, or differ from the norm in a way that should cause concern and result in a policy decision. Comparing responses between students who persist and students who leave the University enables focusing on areas of strong dissatisfaction among the group who leave.

Many institutions survey withdrawing/non-returning students to determine why they leave without graduating. Indeed, the University of Delaware administers such a survey every four or five years. Such surveys are highly problematic, however. Responses rates are typically very low - students have no vested interest in cooperating with an institution with whom they've severed relations. Those who do respond tend to do so with "faded vision". That is, some period of time has elapsed since the decision was made to leave, and the fundamental reasons for that decision become cloudy. It has been the experience of Delaware's Office of Institutional Research that the "Persister/Attriter" analysis of the Student Opinion Survey, described above, enables capture of dissatisfaction data that contribute to attrition while the student is still in school, and the circumstances contributing to dissatisfaction are still fresh in the mind.

The analysis of process, utilizing the American College Testing Program's Student Opinion Survey as described above, could easily be modified for another commercial instrument or for a locally prepared survey. Annual administration of student satisfaction surveys generally tend to yield data that change only minutely from year to year. Administration on alternate years still provides useful trend information, but allows for more meaningful shifts in the data. On years when student satisfaction surveys are not administered, other measures of student "process" can be implemented. The University of Delaware utilizes the "College Student Experiences Questionnaire", described below. Other institutions might choose a different tool for addressing a different set of needs.

College Student Experiences Analyses: While student satisfaction analyses describe student satisfaction levels with programs and services they have used, the college student experience analysis gets at a different aspect of student "process" - how students use their time during college, and whether the college experience has changed them. The analysis is built around C. Robert Pace's "College Student Experiences Questionnaire" (CSEQ). Developed at the University of California at Los Angeles and administered at institutions throughout the country, the CSEQ is an excellent complement to student satisfaction surveys. The CSEQ collects several different types of data. Demographic variables go beyond the traditional age, sex, ethnicity, etc. (although they are collected as well); demographic data include parents' educational levels, amount of time actually spent each week in school-related activity, amount of parental financial support, amount of time spent working at a job while in school, etc. These provide a solid background profile of the respondent pool. The questionnaire then asks for level of involvement in various library experiences, in contact with faculty in varied settings, in various learning activities within courses, in arts activities, in student and athletic activities. Experience in writing, mathematics, science, and technological activities, in personal and general student acquaintances are also explored. These data, coupled with data on what students read about and talk about, provide a richly textured context for studying the "value added" dimension of student process. Respondents characterize the intellectual dimensions of their college experience and estimate gains along several curricular and extracurricular dimensions.

Like the Student Opinion Survey, CSEQ comes with national normative data arrayed by institutional type. And like the student satisfaction analysis described above, CSEQ is analyzed to test for statistically significant differences between institutional and national response patterns and, among institutional respondents, for differences between persisters and "attriters". The comprehensive body of data from students who are satisfied or dissatisfied with the programs and services of an institution, coupled with data on how students spend their time and how those activities affect them, gives an excellent picture of how students are changed by the total college experience.

Personnel

The "processing" of individuals within the various personnel classifications at a college or university is somewhat harder to assess than is the case with students. To be sure, some

measures are readily available within the institutional Personnel Data Base. Faculty growth can at least be indirectly assessed by looking at such measures as academic rank, years in rank, years in service to the institution, and merit salary increases. Non-teaching personnel can similarly be analyzed by looking at job title, years in title, promotions, and merit salary increases. These data provide rudimentary measures of personnel development, but do not really flesh out the details of the activities which underpin the growth.

Institutions receiving Federal contracts and grants are required by statute to file "effort reports" for faculty, professionals and staff involved with the awards. These reports ask faculty to estimate the percentage of their time spent in instructional activity, research, and service. Faculty effort reporting need not be restricted solely to institutions interacting with the Federal Government. It is possible to use the effort reporting concept to assess a number of phenomena related to faculty growth and development:

1. Does the proportion of faculty time spent in teaching versus research change significantly as faculty mature?

2. Does productivity, as measured by external and institutionally sponsored research projects, increase as faculty mature?

3. Does the interplay between time allotted to instruction versus research versus service appear to be consistent with the institutional mission?

These, and other similar questions can be answered through data collected on a simple faculty survey such as the one found in Appendix G. The form elicits not only faculty estimates of distribution of effort; it also provides the opportunity for verification of external and internally sponsored research. When effort distribution is viewed against the contractually administered faculty workload, it is possible to further examine the issue of productivity. For example, faculty at the University of Delaware are expected to teach 12 credit hours per semester. However, it is possible to "buy out" a portion of the 12 credit hour administered load in return for grant-related research, scholarly writing, public service, etc. Consequently, in departments where the average workload is 6 teaching credit hours per semester per FTE faculty, it would be expected that the average percent effort in research and service would approach 50 percent. Moreover, analysis of the actual sponsored activity in the department should empirically underpin the effort estimates. Such a system not only enables monitoring of professional development among faculty, it also enables more efficient management of workload policy.

Effort reporting, as mentioned earlier, describes how a person spends his/her time on the job. The discussion has focused on faculty. However, the model might well be modified for other personnel categories to determine percentage of time spend in job-related activity, career development, educational activity, and service to the college. The categories depend upon the specific interests of the institution; the reporting principles, from an institutional research perspective, transcend institutional boundaries.

In addition to effort analyses, many institutions administer "quality of life" surveys to personnel to assess satisfaction with working environment, opportunities for professional growth and development, career path/promotion opportunities, and with monetary and non-monetary rewards systems. These instruments tend to be locally prepared, and administered by personnel and academic affairs offices. Structured much like a student satisfaction survey, but with a different focus, the surveys can be useful in isolating sources of employee dissatisfaction before they become major labor relations problems.

Fiscal and Physical Resources

Institutional research offices are becoming increasingly involved in budget planning and resource utilization analyses. The manner in which a college or university manages its revenue and expenditure streams is important in and of itself. The capability to look at earning and spending patterns within the context of those of similar institutions, particularly direct competitors, is a primary "environmental scanning" activity, within the open system model discussed in Chapter One.

All colleges and universities produce two basic financial documents which are of great value to the institutional researcher in performing basic financial analyses. The first of these is the financial statement. Most institutions produce an annual financial statement, certified by an accounting firm, which contains three key components: a balance sheet, a statement of changes in fund balances, and a statement of current funds revenues, expenditures, and other changes. (See Appendix H). The second document of major use to the institutional researcher is the HEGIS/IPEDS Financial Statistics Survey, completed annually by virtually every institution in the nation for submission to the U.S. Department of Education. (See Appendix I) Discreet data fields in each of these two documents, when mathematically related over time, produce ratios which are powerful indicators of the relative fiscal health of an institution.

It is not the intention of this portion of the chapter to provide the reader with a course in ratio analysis. There are two excellent publications produced by the accounting firm of Peat, Marwick, and Main which are marvelous primers in ratio analysis. They are:

Minter, J., Hughes, K.S., Robinson, D.D., Turk, F.J., Parager, F.J., and Buchanan, A.D. Ratio Analysis in Higher Education. New York: Peat, Marwick, and Main, 1987.

Turk, F.J. Critical Success Factors in Executive Decision Making. New York: Peat, Marwick, and Main, 1988.

The publications can be ordered from Peat, Marwick, and Main, 345 Park Avenue (15th Floor), New York City, New York 10154.

These volumes are highly readable, are written in jargon-free terms that the layperson can easily grasp, and enable the calculation of highly useful ratios with the use of a hand held calculator. (So useful are the ratios that the Office of Institutional Research at the University of Delaware has developed an electronic spreadsheet that automatically calculates them from the data on the annual financial statement.)

A ratio is nothing more than a mathematical relationship between two numbers. However, the numbers of financial statements and IPEDS reports produce explanatory relationships that describe fiscal health. Consider the following, which are examples of useful ratio analyses:

1. Tuition revenues as a percentage of educational and general expenditures. (How tuition dependent is the institution?)

2. Instructional expenditures as a percentage of total educational and general revenues. (How big a share of the pie does instruction really get? Similar ratios are calculated for academic support, library services, student services, and institutional support, among others.)

3. Educational and general expenditures as a percentage of educational and general revenues. (Does the institution live within its means?)

These are but a small sampling of the ratios that can be calculated using the financial statement and IPEDS reports. Additional ratios utilizing endowment, book value of physical plant assets, gifts and temporary investments, etc., all contribute to a comprehensive picture of the institution's fiscal health. Ratio analysis is an essential skill for the institutional researcher moving into the 21st Century.

The added dimension of ratio analysis is the capability of comparing a given institution's ratios to those of other institutions. As mentioned in Chapter Two, computer tapes of IPEDS survey data for virtually all postsecondary institutions in the nation can be obtained from the Center for Educational Statistics in the U.S. Department of Education. Or computerized electronic spreadsheets of several years worth of selected ratio analyses can be purchased from John Minter Associates in Boulder, Colorado. For institutions seriously interested in comparative data, membership should be considered in the Higher Education Data Sharing Project (HEDS), a consortium of private and independent college and universities, or the Public Universities Information Exchange, as the name suggests restricted to public institutions. Each of the data sharing consortia offer a broad spectrum of comparative data, many with accompanying analysis provided for participating institutions. Information on the consortia can be obtained by writing to John A. Dunn, Executive Director, Center for Planning Information, Tufts University, 28 Sawyer Avenue, Medford, Massachusetts 02155. Whatever the source of comparative data, the Institutional Research Office can provide senior administrators not only with a picture of their own organization's fiscal condition, but how it compares with that of similar colleges and universities.

Institutional research offices must become more active in bridging the gap between traditional institutional research data, e.g., faculty workload data, administrative staffing patterns, etc., and the institutional budgeting process. Budget support analyses, similar to those found in Appendix J, are a useful first step. Tying workload measures such as student/faculty ratio, teaching credit hours per FTE faculty, etc. to basic instructional costs and sponsored research revenues enable an institution to determine how effectively its faculty resources are being utilized. Similar analyses for administrative units are also provided in Appendix J.

The character of institutional research has always adapted to the changing needs of college and university managers. It is clear that the last decade of the 20th Century will be one in which institutions of higher education will be called upon to empirically demonstrate that resources, particularly fiscal resources, are being used in the most responsible and efficient manner possible. In that context, institutional research office must involve themselves in fiscal analyses similar to those described in the preceding paragraphs.

OUTPUTS

Having processed basic raw materials, what are the tangible products of a college or university? Are the products relevant to the society in which the institution functions? Do they exhibit an inherent quality that merits continued support for the institution. In years past, it was simply assumed that postsecondary institutions operated in the public interest. Colleges and universities were pretty much left on their own to decide what students, and implicitly the larger society, needed. This is no longer the case. The push for assessment challenges colleges not only to demonstrate that students are learning, but also that the curricula and faculty scholarship are characterized by quality. As in other aspects of assessment, institutional research play a central role.

Clearly, the primary student "output" are graduates. Institutional research offices traditionally produce reports both for internal and external consumption (e.g. IPEDS Survey of Completions), which display the number of individuals in a given department or discipline who are awarded associate's, bachelor's, master's, and doctoral degrees. While such reports are essential, they do not speak to the "quality" of the graduate.

The traditional measure of how viable an institution's graduates are is the post-graduation activity of those individuals. Are they getting jobs? Are the jobs curriculum related? Who are the major employers? Which graduate schools are being attended? These and other similar questions are the focus of follow-up studies, nearly universally administered by institutional research offices during the 12 months following May commencement. A survey instrument designed to capture these data is found in Appendix K. Administered to all graduating seniors with follow up mailings at 6 and 12 months, the data set developed through this process yields a highly representative picture of the immediate career plans of graduates. Many institutional research office systematically contact alumni at regular intervals to update this information over the years.

A number of institutional research offices are now engaged in more probing follow-up studies. While post-graduation placement data are an important component of outcomes analysis, a richer texture is required if a full picture of the college/university experience is to be achieved. To what extent is the curriculum studied during the college experience relevant to activity in the workplace? How successful is the graduate as measured by promotions and salary increases. (The Office of Institutional Research at the University of Delaware has developed "Employer Surveys" for selected professional programs to determine the extent to which "consumers" of University graduates are satisfied with the product.) To what extent did the college experience enhance the individual's awareness of social issues? Prepare him/her to become fully involved in community life? Heighten awareness of cultural/aesthetic issues? These, and other "value added" dimensions of the college experience are being included in systematic assessment of how the educational enterprise affects students.

Commercial vendors produce a broad array of Alumni Surveys, Career Planning Surveys, and other instruments for assessing the student "products" of an institution. These may or may not be appropriate for a specific college or university; a questionnaire or survey prepared in-house may be more suited to specific information needs. In either instance, the information collected can and should serve as a basis for evaluating current activity at the institution, and for developing appropriate policy recommendations.

Institutions of higher education produce more than graduates. Institutional research offices frequently develop on-going inventories of other measures of productivity. How many patents are derived from pure and applied research on campus? How many copyrights are issued for books and other publications authored by faculty and staff? How many articles appear annually in refereed scholarly journals? How extensively do faculty and other personnel consult with governmental agencies and industry?
These, and other measures of productivity are empirically quantifiable, as evidenced in the concept of effort reporting described earlier in this chapter, and in the data collection instrument found in Appendix G. These measures assist the institution in demonstrating that it is, indeed, adding to the body of pure and applied knowledge.

Summary

This chapter was intended to give the reader a sense of how to get started in collecting and analyzing the data essential to giving explanatory power to the conceptual framework described in Chapter One. The strategies described in the chapter are hardly exhaustive; the reader is encouraged to innovate and enhance, modify and improve the strategies described herein. The resources described in Chapter Two will provide a foundation for these strategies; moreover, the professional organizations listed in Chapter Two provide readers with several forums for describing their work to other institutional researchers.

CHAPTER FOUR: SOME FINAL THOUGHTS

This monograph was intended to give the reader a broad overview of the practice of institutional research. It provided a conceptual framework for thinking analytically about the organizations in which we work. It gave a broad survey of resources and tools available to institutional researchers in analyzing those organizations. And finally, it provided concrete research strategies as starting points for the new institutional researcher to build his/her own research program. To the extent that this volume has given the reader useful information for the everyday practice of institutional research, it has achieved its purpose.

There are some final thoughts to discuss before closing this volume. The single most valuable resource that the institutional researcher brings to any project is his/her mind. One could have access to a library full of books and journals, and to the most sophisticated state-of-the-art computing hardware and software available. Without a creative, vibrant human intellect as the driving force in any research project, these resources are of little value. This is not a cliche, but is an absolute truism.

Given the value of the human intellect in the institutional research process, it is essential that curiosity and creativity be the cornerstones of an institutional research office. The day-to-day demands on institutional research personnel for data now, and only data that impact the immediate crisis at hand provide the perfect opportunity for institutional research to become reactive and routine. If institutional research is to remain a viable and dynamic force in policy analysis and decision support, it must never be complacent. It must be visionary, constantly seeking new ways to generate factual information that leads to concrete policy activity. The institutional research program must always be reliable but should never be utterly predictable. When the latter happens, the institution is static in a rapidly changing external environment and will have a difficult time, at best, in developing adaptive strategies for coping with those changes.

Chapter Two described a number of professional associations, journals, and other sources for on-going dialogue with colleagues as to the "state of the art". Use these resources. Read, write, attend meetings, present papers, and publish. Find out what other institutional researchers are thinking and doing, and how they're doing it. Constantly test the currency and validity of the research methodology in use. It is all too easy to become comfortable with a given methodological approach to a problem. That is not to suggest that the wheel needs to be re-invented each time a particular issue arises; however, it's wise to constantly check to make certain that the wheel is still round and turning, and getting the institution the information it needs. When the author of this monograph assumed his current position, the Office of Institutional Research and Planning was entrenched in specific, inflexible approaches to institutional research. Reports were generated but not read, and certainly not used. The seven most disdainful words to the

author were, "We've never done it that way before." The Office has internalized the strategies described above for staying current in the field, and the operational question now is, "What's the best way to get the information?" More to the point, reports are read and used, and when data are needed for policy decisions, the telephone call to the Office of Institutional Research and Planning is the first order of business.

The problems and issues that require analysis through institutional research are rarely direct or simple. They do not lend themselves to formulated methodological approaches. They tend to be complex, and frequently interrelated with other problems and issues that are not immediately evident. But therein lies the challenge and reward in institutional research! To clearly define the problem and collect sufficient and appropriate data to illuminate it and render it soluble requires creative thinking. Take the most appropriate approach to analyzing the problem at hand, realizing that it may not be the most conventional approach. Qualitative analysis of interview data may yield much richer information than quantification of Likert scale responses to survey items in research dealing with student and faculty/staff attrition. Historiographic and ethnographic research may well enrich the texture of pure quantitative analysis. The researcher should explore the broadest possible range of analytical alternatives and select that method or combination of methods with the greatest likelihood of yielding useful information. The fact that a given approach to analysis has not been tried before does not doom it as an alternative so long as it is methodologically sound.

A final word: Institutional research is challenging and exciting. Hopefully this volume has conveyed that notion. Come back and visit this monograph from time to time. In the meantime, go out and do great research. And above all, have fun doing it!

APPENDIX A

University of Delaware

OFFICE OF INSTITUTIONAL RESEARCH AND STRATEGIC PLANNING
NEWARK, DELAWARE 19716

(302) 451-8946

July 15, 1987

Dear Student:

This survey is part of a research project designed to assist the University of Delaware in understanding how students decide upon a specific college to further their education. We have developed the enclosed survey, which we are mailing to a selected group of applicants to whom we extended an offer of admission. When analyzed, the survey results will tell us where the University ranks in an applicant's choices of schools, how the University compares with other institutions in students' perceptions of several important factors, and how students learn about the University.

We would appreciate your taking the time to complete the enclosed survey and return it to us in the enclosed postage-paid envelope. The survey is short and should only take about 15 minutes to complete. Since you are part of small sample, your participation is extremely important to the accuracy of results. Your responses are strictly confidential and you will also note that the survey is anonymous.

Your cooperation in completing this short survey will greatly assist us in our admissions activity. If you will be attending the University of Delaware this fall, please know that we are looking forward to serving you. If you plan to attend another college or university, please accept my best wishes for success in your future endeavors.

Sincerely,

Michael F. Middaugh
Assistant to the President for
Institutional Research and
Strategic Planning

MFM/cp

Enclosure

P.S. If you have any questions, do not hesitate to contact me at 302-451-8946.

University of Delaware
College Selection Survey

PART ONE. GENERAL INFORMATION

INSTRUCTIONS: For each item below, please circle the number of your response or answer the question by writing your response. For example, if you are female, circle number 2 in the first question below.

(Office Use Only)

1. Sex: 1. Male 2. Female —

2. Home State: _____ (e.g., DE, NJ, MD, PA, NY, etc.) — —

3 a) From what type of high school did you graduate?

1. Public 2. Private 3. Parochial —

b) State where this high school is located: _____ — —

4. Race/Ethnic group:
1. American Indian
2. Asian/Pacific Islander
3. Black
4. Hispanic
5. White
6. Other
—

5. Please indicate your cumulative high school GPA:

1. 3.5 or higher
2. 3.0 - 3.49
3. 2.5 - 2.99
4. 2.0 - 2.49
5. 2.0 or lower
—

6. Please indicate your highest SAT scores: SATV _____ SATM _____ — — —

7. Into which College at the University of Delaware were you accepted? — — —

1. Agriculture
2. Arts & Science (except undeclared)
3. Arts & Science, undeclared
4. Business & Economics
5. Education
6. Engineering
7. Human Resources
8. Nursing
9. Physical Education
—

8. To how many colleges or universities did you apply?

1. One
2. Two
3. Three
4. Four
5. Five
6. Six
7. Seven or more
—

Cols. 1-16

PART TWO: COLLEGE SELECTION

1. Please list in order of preference the three colleges or universities that were at the top of your application list. Then answer the two questions to the right.

	Were you accepted?		Were you awarded any financial aid?			(For Office Use Only)
	Yes	No	Yes	No	Did not Apply for aid	
1st Choice: _____	1	2	1	2	3	____
2nd Choice: _____	1	2	1	2	3	____
3rd Choice: _____	1	2	1	2	3	____

2. During the college choice process, did your preference for the University of Delaware change?

1. Yes, moved up
2. Yes, moved down
3. Did not change

___

3 a) Were you offered a scholarship strictly based on academic merit from the University of Delaware?

1. Yes
2. No

___

b) Were you offered a scholarship strictly based on academic merit from other schools?

1. Yes
2. No

___

If yes, please name the other schools: _____ ____

_____ ____

_____ ____

c) If you did receive a scholarship based strictly on academic merit, was it the decisive factor in your final college choice?

1. Yes
2. No

___

4. Which of the following statements best characterizes your college enrollment decision?

1. I am enrolling at the University of Delaware
2. I am enrolling at another college
   (Please specify: _____)
3. I am uncertain where I will be enrolling.
4. I am not enrolling at any college at this time.

___

____

Cols. 17-55

PART THREE. COLLEGE-UNIVERSITY CHARACTERISTICS

We want to learn about how you view the characteristics of the University of Delaware in comparison to other colleges and universities to which you have applied, been accepted, and seriously considered attending. Please complete this section by first indicating how important the characteristic was in influencing your enrollment decision (circle the most appropriate response). **If you are attending Delaware next fall,** indicate how you rate the various characteristics at both the University of Delaware and the school you would have selected had you not decided to enroll at Delaware. **Be sure to write the name** of the school you would have attended in the blank provided. **If you are attending a different college,** indicate how Delaware compares to the school you will be attending. Again, **be sure to include the name** of the school you will be attending. If you do not know enough about an item, please indicate "don't know" (circle numeral 5).

How Important Is this To You?				University of Delaware					School You Would Have or Will Attend Name: _____					(For Office Use Only)
Very Important	Somewhat Important	Not Important	Characteristic	Very Good	Good	Poor	Very Poor	Don't Know	Very Good	Good	Poor	Very Poor	Don't Know	__ __ __ __ Col.56-59
1	2	3	1. Quality of academics	1	2	3	4	5	1	2	3	4	5	__ __ __
1	2	3	2. Honors Program	1	2	3	4	5	1	2	3	4	5	__ __ __
1	2	3	3. Personal attention given to students by faculty	1	2	3	4	5	1	2	3	4	5	__ __ __
1	2	3	4. General reputation of univ.	1	2	3	4	5	1	2	3	4	5	__ __ __
1	2	3	5. Quality of faculty	1	2	3	4	5	1	2	3	4	5	__ __ __
1	2	3	6. Total cost (tuition, fees, room & board)	1	2	3	4	5	1	2	3	4	5	__ __ __
1	2	3	7. Social activities	1	2	3	4	5	1	2	3	4	5	__ __ __
1	2	3	8. Financial aid package	1	2	3	4	5	1	2	3	4	5	__ __ __
1	2	3	9. Quality of programs in your intended major	1	2	3	4	5	1	2	3	4	5	__ __ __
1	2	3	10. Diversity of student body	1	2	3	4	5	1	2	3	4	5	__ __ __
1	2	3	11. Intercollegiate athletic program	1	2	3	4	5	1	2	3	4	5	__ __ __
1	2	3	12. Housing opportunities	1	2	3	4	5	1	2	3	4	5	__ __ __
1	2	3	13. Athletic facilities	1	2	3	4	5	1	2	3	4	5	__ __ __
1	2	3	14. Faculty teaching reputation	1	2	3	4	5	1	2	3	4	5	__ __ __
1	2	3	15. Closeness to home	1	2	3	4	5	1	2	3	4	5	
1	2	3	16. Size of enrollment	1	2	3	4	5	1	2	3	4	5	
1	2	3	17. Overall treatment as prospective students	1	2	3	4	5	1	2	3	4	5	__ __ __
1	2	3	18. Promptness of replies to requests for information	1	2	3	4	5	1	2	3	4	5	__ __ __
														Cols. 60-77 78-95 96-113

Of the characteristics above, which three factors (in order of importance) most influenced your enrollment decision?

Most important factor: # ____ Second most important: #____ Third most important: # ____ __ __ __ __ __ __

Cols. 114-119

PART FOUR. INFORMATION SOURCES

We are interested in learning which sources of information students use to learn about the University of Delaware, whether the information provided by the source was positive or negative, and how important that source and information was in shaping your choice of a college. For each of the information sources **that you actually used**, please indicate whether the information you received about the University was positive or negative. Also, for those sources you used, indicate how important that information was to you in your selection of a college. Circle the number corresponding to your choice.

Information Source	Didn't use this Source	IMPACT: Very Positive	Positive	No Impact	Negative	Very Negative	IMPORTANCE: Very Important	Somewhat Important	Not Important	(Office Use Only)	
1. Viewbook	1	2	3	4	5	6	1	2	3	—	—
2. Campus Visit	1	2	3	4	5	6	1	2	3	—	—
3. Catalog	1	2	3	4	5	6	1	2	3	—	—
4. College Comparison Guides (e.g., Peterson's, Barron's)	1	2	3	4	5	6	1	2	3	—	—
5. Parents	1	2	3	4	5	6	1	2	3	—	—
6. Friends	1	2	3	4	5	6	1	2	3	—	—
7. Current students	1	2	3	4	5	6	1	2	3	—	—
8. High school teacher	1	2	3	4	5	6	1	2	3	—	—
9. High school guidance counselor	1	2	3	4	5	6	1	2	3	—	—
10. Alumnus	1	2	3	4	5	6	1	2	3	—	—
11. High school visit by faculty member	1	2	3	4	5	6	1	2	3	—	—
12. Mailing from the Honors program	1	2	3	4	5	6	1	2	3	—	—
13. High school visit by admissions officer	1	2	3	4	5	6	1	2	3	—	—
14. Athletic staff	1	2	3	4	5	6	1	2	3	—	—
15. Home/Hotel receptions	1	2	3	4	5	6	1	2	3	—	—
										Cols. 1-15	16-30

List in order of importance (by selecting from the numbers 1-15, above) the three most important influences on your decision as to which college to attend:

Most important influence: #_____ Second most important : #_____ Third most important #_____

— —
— —
— —

Cols. 31-36

Thank you for your cooperation

APPENDIX B

INSTITUTIONAL RESEARCH
AND PLANNING

NEWARK CAMPUS
ADMISSIONS PROFILE FALL 90
FIRST-TIME NEW STUDENTS

DATE: 07/03/90

	TOTAL APPLICATIONS	TOTAL OFFERS	OFFERS AS % OF APPLICATIONS	TOTAL PAID DEPOSITS	PAID DEPOSITS AS % OF OFFERS	TOTAL CANCELS/ WITHDRAWALS	TOTAL DENIALS	TOT. EXT./DEFERS /PENDING
PGI SCORES								
3.5-4.00	305	304	99.0	74	24.0	230	0	0
3.0-3.49	1538	1530	99.0	348	22.0	1182	0	3
2.5-2.99	4344	4280	98.0	1312	30.0	2967	27	5
2.0-2.49	4179	2556	61.0	1184	46.0	1368	1514	9
1.5-1.99	1718	229	13.0	154	67.0	71	1476	4
1.0-1.49	532	8	1.0	7	87.0	1	510	4
0.1-0.99	131	1	0.0	0	0.0	0	126	1
NO SCORE	261	91	34.0	42	46.0	37	81	37
AVERAGE	2.40	2.64		2.53		2.71	1.80	2.15
VERBAL SAT SCORES								
700-800	89	89	100.0	26	29.0	63	0	0
600-699	934	893	95.0	246	27.0	647	31	0
500-599	3896	3353	86.0	1030	30.0	2319	497	11
400-499	6041	3940	65.0	1464	37.0	2471	2000	14
300-399	1729	646	37.0	315	48.0	328	1033	9
200-299	153	24	15.0	12	50.0	11	117	6
NO SCORE	166	54	32.0	28	51.0	17	56	23
AVERAGE	476	498		486		504	426	418
MATH SAT SCORES								
700-800	649	612	94.0	134	21.0	478	32	1
600-699	3512	2980	84.0	815	27.0	2164	494	6
500-599	5402	3806	70.0	1404	36.0	2399	1513	13
400-499	2610	1364	52.0	631	46.0	726	1176	8
300-399	616	177	28.0	106	59.0	69	418	10
200-299	53	6	11.0	3	50.0	3	45	2
NO SCORE	166	54	32.0	28	51.0	17	56	23
AVERAGE	551	572		552		583	501	471
COMB SAT SCORES								
1500-1600	7	7	100.0	3	42.0	4	0	0
1400-1499	54	54	100.0	14	25.0	40	0	0
1300-1399	384	378	98.0	91	24.0	287	3	0
1200-1299	1198	1138	94.0	255	22.0	882	48	1
1100-1199	2512	2195	87.0	657	29.0	1538	295	4
1000-1099	3540	2655	75.0	915	34.0	1736	839	10
900-999	2906	1725	59.0	733	42.0	990	1117	7
800-899	1483	628	42.0	331	52.0	293	816	6
700-799	542	143	26.0	82	57.0	59	377	5
600-699	165	21	12.0	12	57.0	9	136	4
BELOW-600	51	1	1.0	0	0.0	1	47	3
NO SCORE	166	54	32.0	28	51.0	17	56	23
AVERAGE	1027	1070		1038		1087	927	890
TOTALS	13008	8999	69.0	3121	34.0	5856	3734	63

*** AVERAGES DO NOT INCLUDE STUDENTS WITH NO SCORE

	TOTAL APPLICATIONS			TOTAL OFFERS			OFFERS AS % OF APPLICATIONS			TOTAL PAID DEPOSITS			PAID DEPOSITS AS % OF OFFERS		
FALL	88	89	90	88	89	90	88	89	90	88	89	90	88	89	90
PGI SCORES															
3.5-4.00	161	214	305	161	212	304	100.0	99.0	99.0	57	66	74	35.0	31.0	24.0
3.0-3.49	1371	1684	1538	1354	1668	1530	98.0	99.0	99.0	406	439	348	29.0	26.0	22.0
2.5-2.99	4485	4784	4344	4052	4021	4280	90.0	84.0	98.0	1488	1387	1312	36.0	34.0	30.0
2.0-2.49	5850	5227	4179	2093	1712	2556	35.0	32.0	61.0	1204	938	1184	57.0	54.0	46.0
1.5-1.99	2709	2475	1718	654	617	229	24.0	24.0	13.0	268	250	154	40.0	40.0	67.0
1.0-1.49	778	712	532	78	87	8	10.0	12.0	1.0	22	26	7	28.0	29.0	87.0
0.1-0.99	187	155	131	1	1	1	0.0	0.0	0.0	1	1	0	100.0	100.0	0.0
NO SCORE	299	276	261	84	75	91	28.0	27.0	34.0	58	53	42	69.0	70.0	46.0
AVERAGE	2.29	2.35	2.40	2.57	2.63	2.64				2.51	2.54	2.53			
VERBAL SAT SCORES															
700-800	92	103	89	90	101	89	97.0	98.0	100.0	32	37	26	35.0	36.0	29.0
600-699	968	1239	934	873	1065	893	90.0	85.0	95.0	305	336	246	34.0	31.0	27.0
500-599	4730	4858	3896	3319	3350	3353	70.0	68.0	86.0	1250	1120	1030	37.0	33.0	30.0
400-499	7305	6619	6041	3343	3046	3940	45.0	46.0	65.0	1516	1265	1464	45.0	41.0	37.0
300-399	2342	2300	1729	757	720	646	32.0	31.0	37.0	345	331	315	45.0	45.0	48.0
200-299	179	201	153	47	61	24	26.0	30.0	15.0	18	33	12	38.0	54.0	50.0
NO SCORE	224	207	166	48	50	54	21.0	24.0	32.0	38	38	28	79.0	76.0	51.0
AVERAGE	471	477	476	497	504	498				490	492	486			
MATH SAT SCORES															
700-800	582	795	649	525	703	612	90.0	88.0	94.0	156	191	134	29.0	27.0	21.0
600-699	3444	3882	3512	2562	2750	2980	74.0	70.0	84.0	892	829	815	34.0	30.0	27.0
500-599	6582	6135	5402	3451	3162	3806	52.0	51.0	70.0	1492	1264	1404	43.0	39.0	36.0
400-499	3852	3555	2610	1495	1386	1364	38.0	38.0	52.0	738	671	631	49.0	48.0	46.0
300-399	1055	882	616	372	326	177	35.0	36.0	28.0	179	158	106	48.0	48.0	59.0
200-299	101	71	53	24	16	6	23.0	22.0	11.0	9	9	3	37.0	56.0	50.0
NO SCORE	224	207	166	48	50	54	21.0	24.0	32.0	38	38	28	79.0	76.0	51.0
AVERAGE	534	544	551	560	569	572				547	551	552			
COMB SAT SCORES															
1500-1600	7	5	7	7	5	7	100.0	100.0	100.0	4	0	3	57.0	0.0	42.0
1400-1499	92	99	54	89	96	54	96.0	96.0	100.0	32	36	14	35.0	37.0	25.0
1300-1399	364	512	384	343	479	378	94.0	93.0	98.0	107	133	91	31.0	27.0	24.0
1200-1299	1096	1356	1198	992	1150	1138	90.0	84.0	94.0	329	315	255	33.0	27.0	22.0
1100-1199	2656	2934	2512	2011	2164	2195	75.0	73.0	87.0	705	667	657	35.0	30.0	29.0
1000-1099	4233	3926	3540	2384	2107	2655	56.0	53.0	75.0	999	840	915	41.0	39.0	34.0
900-999	3666	3385	2906	1467	1317	1725	40.0	38.0	59.0	736	631	733	50.0	47.0	42.0
800-899	2199	1952	1483	712	659	628	32.0	33.0	42.0	376	325	331	52.0	49.0	52.0
700-799	934	823	542	316	265	143	33.0	32.0	26.0	134	127	82	42.0	47.0	57.0
600-699	300	270	165	91	90	21	30.0	33.0	12.0	38	42	12	41.0	46.0	57.0
BELOW-600	69	58	51	17	11	1	24.0	18.0	1.0	6	6	0	35.0	54.0	0.0
NO SCORE	224	207	166	48	50	54	21.0	24.0	32.0	38	38	28	79.0	76.0	51.0
AVERAGE	1005	1021	1027	1057	1074	1070				1037	1044	1038			
TOTALS	15840	15527	13008	8477	8393	8999	53.0	54.0	69.0	3504	3160	3121	41.0	37.0	34.0

*** AVERAGES DO NOT INCLUDE STUDENTS WITH NO SCORE

APPENDIX C

Economic Status of The Profession
1987-1988

INSTITUTION	AVERAGE SALARY BY RANK (IN THOUSANDS)			AVERAGE COMP BY RANK (IN THOUSANDS)			NUMBER OF FULL-TIME FACULTY (MEN)			WOMEN		
MARYLAND	PR	AO	AI	PR	AO	AI	PR	AO	AI	PR	AO	AI
JOHN HOPKINS	63.9	43.1	36.3	74.5	51.9	44.1	277.0	77.0	110.0	27.0	29.0	47.0
MARY.(COL.PARK)	55.8	39.9	32.7	69.6	50.0	40.1	427.0	334.0	161.0	47.0	96.0	81.0
MARY.(BAL.CITY)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	119.7	83.0	69.0	144.1	101.9	84.2	704.0	411.0	271.0	74.0	125.0	128.0
NEW JERSEY												
DREW UNIVERSITY	44.3	34.3	25.9	54.7	43.3	32.0	48.0	20.0	13.0	15.0	11.0	6.0
PRINCETON (SEM.)	55.0	0.0	34.0	73.0	0.0	44.4	19.0	4.0	7.0	3.0	1.0	6.0
RUTGERS(N.BRSWCK)	61.6	44.1	34.5	73.1	53.7	42.4	441.0	306.0	177.0	62.0	122.0	104.0
PRINCETON UNIV.	67.8	42.3	32.8	76.7	48.2	37.5	331.0	41.0	144.0	21.0	15.0	42.0
TOTAL	228.7	120.7	127.2	277.5	145.2	156.3	839.0	371.0	341.0	101.0	149.0	158.0
NEW YORK												
ALDELPHI UNIV.	46.7	38.6	30.3	57.2	46.3	35.6	85.0	56.0	49.0	16.0	52.0	43.0
COLUMBIA UNIV.	64.8	45.8	33.6	80.4	58.8	44.2	431.0	106.0	184.0	52.0	39.0	80.0
COLUMBIA(TCH.COL.)	52.0	39.7	30.3	66.3	51.4	40.0	51.0	17.0	10.0	15.0	19.0	11.0
CORNELL(END.COL.)	59.6	42.3	35.5	74.3	52.8	43.7	420.0	128.0	121.0	17.0	31.0	38.0
CORNELL(STAT.COL.)	52.9	40.9	33.3	69.2	52.8	42.4	286.0	197.0	103.0	21.0	40.0	50.0
FORDHAM UNIV.	56.4	41.6	32.2	68.5	50.5	39.3	126.0	133.0	94.0	20.0	54.0	39.0
HOFSTRA UNIV.	52.2	40.2	33.9	63.8	49.2	40.2	103.0	85.0	96.0	19.0	30.0	55.0
NEW YORK UNIVERSITY	62.5	42.4	37.1	76.5	54.2	47.9	439.0	237.0	142.0	83.0	101.0	89.0
RENES.POLY.TECH.	59.2	43.0	36.4	69.3	52.0	43.7	165.0	105.0	68.0	6.0	10.0	20.0
SUNY at ALBANY	60.3	44.2	33.5	74.3	55.3	41.7	223.0	195.0	83.0	10.0	41.0	55.0
SUNY at BING.	58.6	41.9	31.8	72.3	52.4	39.4	144.0	133.0	89.0	11.0	35.0	35.0
SUNY at BUFFALO	60.7	44.1	35.0	74.8	55.1	43.2	349.0	226.0	112.0	27.0	43.0	49.0
SUNY at STONY BROOK	61.5	42.7	32.6	75.7	53.2	40.5	270.0	149.0	114.0	21.0	33.0	38.0
SYRACUSE UNIV.	48.8	34.8	29.3	63.2	45.8	37.6	376.0	191.0	150.0	26.0	87.0	76.0
UNIV. OF ROCHESTER	57.5	41.2	34.4	69.5	50.1	41.8	218.0	109.0	90.0	16.0	30.0	61.0
TOTAL	853.7	623.4	499.2	1055.3	779.9	621.2	3686.0	2067.0	1505.0	360.0	645.0	739.0

Economic Status of The Profession
1987-1988

INSTITUTION	AVERAGE SALARY BY RANK (IN THOUSANDS)			AVERAGE COMP BY RANK (IN THOUSANDS)			NUMBER OF FULL-TIME FACULTY (MEN)			WOMEN		
VIRGINIA	PR	AO	AI	PR	AO	AI	PR	AO	AI	PR	AO	AI
WILLIAM & MARY	51.7	42.0	33.9	63.1	51.8	42.1	167.0	98.0	44.0	12.0	23.0	26.0
UNIV. OF VIRGINIA	62.6	42.1	33.7	76.1	52.7	42.7	388.0	225.0	160.0	18.0	34.0	80.0
VIRG.POLY.TECH.INST.	56.9	40.4	34.9	69.3	49.9	43.5	517.0	462.0	268.0	18.0	62.0	97.0
VIRGINIA COMM. UNIV.	49.0	40.5	34.2	60.3	49.8	42.1	154.0	243.0	140.0	29.0	83.0	101.0
TOTAL	220.2	165.0	136.7	268.8	204.2	170.4	1226.0	1028.0	612.0	77.0	202.0	304.0
PENNSYLVANIA												
BYRN MAWR COLLEGE	46.1	36.3	27.2	56.8	45.8	33.1	43.0	14.0	6.0	18.0	18.0	16.0
CARNEGIE MELLON	63.4	42.8	37.8	76.4	51.9	45.2	198.0	114.0	107.0	12.0	22.0	34.0
DREXEL UNIV.	52.8	38.4	33.6	64.7	48.8	42.6	126.0	87.0	86.0	6.0	21.0	31.0
LEHIGH UNIV..	53.8	39.2	32.8	70.5	50.6	40.4	187.0	89.0	52.0	9.0	9.0	25.0
PENN STATE (MAIN)	54.2	39.1	32.3	65.7	48.2	39.9	510.0	377.0	278.0	27.0	49.0	92.0
UNIV. OF PENN.	64.3	46.3	38.3	79.2	58.4	46.6	478.0	190.0	160.0	44.0	46.0	71.0
UNIV. OF PITT. (MAIN)	54.2	39.0	30.9	67.0	48.8	38.3	381.0	323.0	157.0	53.0	99.0	145.0
TEMPLE UNIV.	48.3	38.0	31.8	59.4	47.3	39.9	406.0	298.0	150.0	74.0	96.0	101.0
TOTAL	391.0	282.8	237.5	482.9	354.0	292.9	2286.0	1478.0	990.0	225.0	342.0	499.0

The Annual Report
on the
Economic Status of the Profession
1987-1988

INSTITUTION	AVERAGE SALARY BY RANK (IN THOUSANDS)			AVERAGE COMP BY RANK (IN THOUSANDS)			TOTAL FACULTY BY RANK		
	PR	AO	AI	PR	AO	AI	PR	AO	AI
MARYLAND	59.0	40.5	34.1	71.5	50.4	41.7	778	536	399
NEW JERSEY	59.6	40.9	32.5	69.5	49.4	39.0	940	520	499
DELAWARE	53.1	37.8	30.3	67.1	48.6	39.4	275	296	251
NEW YORK	58.3	41.6	33.5	72.3	52.3	41.9	4,046	2,712	2,244
PENNSYLVANIA	55.8	40.0	33.5	68.7	49.9	41.4	2,511	1,820	1,489
VIRGINIA	56.9	40.9	34.3	69.3	50.7	42.8	1,303	1,230	916
TOTAL	342.7	241.7	198.3	418.5	301.2	246.1	9853	7114	5798
Minimum	53.1	37.8	30.3	67.1	48.6	39.0	275	296	251
Maximum	59.6	41.6	34.3	72.3	52.3	42.8	4046	2712	2244
AVERAGE	68.5	48.3	39.7	83.7	60.2	49.2	1971	1423	1160

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APPENDIX D

UNIVERSITY OF DELAWARE
CURRENT FUND REVENUES
FY84-85 THROUGH FY88-89

	FY 84-85 TOTAL REVENUES $	FY 85-86 TOTAL REVENUES $	FY 86-87 TOTAL REVENUES $	FY 87-88 TOTAL REVENUES $	FY 88-89 TOTAL REVENUES $
TUITION & FEES	52,759,924	61,567,335	68,892,267	78,270,969	88,137,970
GOVERNMENT APPROPRIATIONS:					
STATE	50,211,800	53,812,700	56,973,700	60,043,400	63,299,500
FEDERAL	2,639,532	2,294,045	2,665,952	2,447,113	2,561,762
CONTRACTS & GRANTS:					
STATE	1,889,015	2,723,064	3,010,894	3,392,969	4,192,403
FEDERAL	14,067,400	16,281,811	17,754,498	17,274,554	19,569,865
OTHER	2,358,215	2,988,836	3,968,054	3,858,120	3,606,728
GIFTS	7,778,094	7,059,731	7,925,438	7,433,794	7,523,923
ENDOWMENTS	14,128,223	15,245,416	15,420,133	17,929,859	21,265,749
TEMPORARY INVESTMENTS	6,336,791	6,373,316	5,841,532	6,247,728	6,947,219
ACTIVITIES OF EDUCATIONAL DEPARTMENTS	1,929,018	2,074,031	2,063,786	2,424,518	2,863,455
OTHER SOURCES:					
USER SERVICE CHARGES	1,407,040	1,447,614	2,020,818	2,200,765	2,408,872
CAMPUS CONFERENCES	2,594,115	3,310,907	3,672,691	3,816,327	2,708,286
STUDENT CENTER	243,728	230,137	0	0	0
RENTALS	418,540	330,355	492,626	349,141	294,244
COMPUTER CENTER	71,739	105,434	533,436	485,559	451,410
OFFICE OF COMPUTER-BASED INSTRUCTION	480,578	404,948	0	0	0
MISCELLANEOUS	1,996,140	3,670,527	1,794,087	2,574,467	2,367,300
TOTAL EDUCATION & GENERAL	161,309,892	179,920,207	193,029,912	208,749,283	228,198,686
AUXILIARY OPERATIONS	28,967,677	29,335,996	31,231,975	33,249,904	37,295,001
TOTAL REVENUES	190,277,569	209,256,203	224,261,887	241,999,187	265,493,687

CURRENT FUND EXPENDITURES
FY 1984-85 THROUGH FY 1988-89

	FY 84-85	FY 85-86	FY 86-87	FY 87-88	FY 88-89
EXPENDITURES, TRANSFERS AND CHANGES IN FUND BALANCES					
EDUCATION AND GENERAL:					
INSTRUCTION AND DEPARTMENTAL RESEARCH	72,282,085	79,469,252	86,033,034	94,244,990	105,933,914
SPONSORED RESEARCH	14,990,564	18,860,451	21,363,590	22,217,453	24,156,968
EXTENSION AND PUBLIC SERVICE	7,690,712	8,833,932	9,562,823	10,288,031	9,589,985
ACADEMIC SUPPORT	8,462,643	9,387,419	10,598,417	12,260,056	13,708,997
TOTAL PRIMARY PROGRAMS	103,426,004	116,551,054	127,557,864	139,010,530	153,389,864
STUDENT SERVICES	6,642,681	6,954,039	7,734,778	8,256,461	9,224,327
OPERATIONS AND MAINTENANCE OF PLANT	12,393,359	13,180,395	13,876,569	14,347,343	16,118,376
GENERAL INSTITUTIONAL SUPPORT	11,790,091	14,325,776	16,233,158	21,764,229	22,409,155
TOTAL SUPPORT PROGRAMS	30,826,131	34,460,210	37,844,505	44,368,033	47,751,858
STUDENT AID	7,754,280	9,015,941	9,791,771	11,472,532	16,914,730
TOTAL EXPENDITURES	142,006,415	160,027,205	175,194,140	194,851,095	218,056,452
MANDATORY TRANSFERS TO (FROM) OTHER FUNDS	2,487,671	2,601,336	2,322,595	2,591,821	3,709,958
OTHER TRANSFERS TO (FROM) OTHER FUNDS	12,256,653	15,244,910	11,623,357	16,736,429	13,202,307
ALLOCATIONS AND OTHER CHANGES	5,933,010	3,753,645	5,787,687	(3,748,406)	(5,380,857)
TOTAL TRANSFERS AND ALLOCATIONS	20,677,334	21,599,891	19,733,639	15,579,844	11,531,408
TOTAL EDUCATION AND GENERAL	162,683,749	181,627,096	194,927,779	210,430,939	229,587,860
AUXILIARY OPERATIONS:					
EXPENDITURES	22,195,865	22,349,995	24,565,475	26,695,072	31,470,838
MANDATORY TRANSFERS TO (FROM) OTHER FUNDS	2,230,442	2,305,023	2,672,471	2,214,965	2,211,904
OTHER TRANSFERS TO (FROM) OTHER FUNDS	3,151,198	3,087,341	2,104,187	2,415,565	1,529,846
ALLOCATIONS AND OTHER CHANGES	16,315	(113,252)	(8,025)	242,646	693,239
TOTAL AUXILIARY OPERATIONS	27,593,820	27,629,107	29,334,108	31,568,248	35,905,827
TOTAL EXPENDITURES, TRANSFERS AND CHANGES IN FUND BALANCES	190,277,569	209,256,203	224,261,887	241,999,187	265,493,687

APPENDIX E

BUILDING INVENTORY

Academic	Newark	Total All
Major Classrooms and Laboratories	42	52
Farm/Auxiliary	59	116
Other Special Use	28	28
Physical Education	4	4
TOTAL ACADEMIC	133	200
Student Residence and Service		
Residence Halls (Major Residence Hall Complexes = 8)	55	57
Other Housing	37	85
Dining Halls	6	6
Student Activities	14	14
TOTAL STUDENT RESIDENCE AND SERVICE	112	162
Administrative		
General Services	29	32
Plant Operations and Services	10	18
TOTAL ADMINISTRATIVE	39	50
SUB-TOTAL	284	412
Research Vessels	--	3
TOTAL	284	415

Source: Facilities Management
(Data as of June 30, 1989)

LAND INVENTORY

Acreage Owned	
New Castle County	
Newark Campus Total	988
Polly Drummond Hill	508
Wilmington	34
TOTAL New Castle County	1,530
Kent County	13
Sussex County	
Greenwood	198
Georgetown Substation	347
Lewes	405
TOTAL Sussex County	950
TOTAL Acreage Owned	2,493
Acreage Leased	
Sussex County	37
Grand Total (Owned and Leased)	2,530

Source: Facilities Management

APPENDIX F

Institutional Research Study 89-19

ENROLLMENT, DROPOUT, AND GRADUATION RATES FOR FIRST-TIME FRESHMEN, NEWARK CAMPUS FALL, 1979 THROUGH FALL, 1988

October 20, 1989

by
Michael F. Middaugh

INTRODUCTION

Each year, the Office of Institutional Research and Planning provides enrollment, dropout, and graduation rates for entering first-time freshman cohorts over a ten year period. These data enable monitoring of attrition and graduation patterns, and are essential to effective enrollment planning.

This report examines the aggregate enrollment, dropout, and graduation rates on a year by year basis for all students (Table 1); for Delaware residents and non-residents (Tables 2 and 3); for White students and Black students (Tables 4 and 5); and for males and females (Tables 6 and 7).

FINDINGS

A. Total Students

The ten year enrollment and attrition rates among first-time freshmen at the University of Delaware clearly demonstrate an improved retention pattern over the course of the decade. Attrition from freshman to sophomore year moved from a high of 19.5% for the Fall 1981 cohort to a low of 12.8% for the Fall 1987 cohort. The 13.6% attrition rate for the Fall 1988 cohort, while not significantly greater than that for the previous year, may portend movement of attrition rates closer to the mean for the ten year period. This is a circumstance that merits watching during a period when we contemplate reducing overall enrollments.

Graduation rates are remarkably stable for the six cohorts which have had at least five years in which to complete their studies (i.e., Fall 1979 through Fall 1984), varying between 64.4% and 67.3%. Also of note is the fact that slightly over half of the cohort of 1984 graduated within four years, a modest upturn from historical rates. If more students within each cohort graduate within four years, such a trend would

have implications for enrollment planning, as we now assume that roughly one-fifth of each cohort will take five or more years to graduate.

B. Delaware Residents and Non-Residents

While the freshman to sophomore year attrition rate for Delaware residents improved from 24.0% for the 1980 cohort to 16.9% for the 1987 cohort, it is consistently substantially higher than that for non-residents. The second fall attrition rate for non-residents was at a 10 year low for the cohort of 1987, at 10.6%. Both residents and non-residents showed an upturn in attrition among the 1988 cohort, at 18.4% and 11.4%, respectively. Graduation rates are dramatically different between residents and non-residents. Delaware resident graduation rates declined from 60.9% for the 1982 cohort to 56.3% for the 1984 cohort. The graduation rates for non-residents in the same two cohorts were 70.5% and 71.2%, respectively.

C. Ethnicity

Freshman to sophomore attrition rates for White and Black students are essentially equivalent for the second consecutive year, at 13.4% for Whites and 14.3% for Blacks. Sophomore to junior year rates are also fairly equivalent for the first time as seen in the cohort of 1987. These data suggest that future graduation rates for Whites and Blacks will move closer to parity as the result of increased retention among Black students. At present, 67 to 68% of Whites are graduating in five or more years, while 44 to 45% Blacks are graduating. The data are improving with time, and suggest enhanced retention and graduation rates over the next few years.

D. Sex

The attrition rate for males from freshman to sophomore year has historically been higher than that for females. This pattern was reversed for the first time with the cohort of 1988, with male attrition at 13.4% and female attrition at 13.8%. Females, on the other hand, graduate at higher rates in five or more years than do males. Female graduation rates for the six cohorts with at least five years of history vary between 67.0% and 70.2%, while males range between 60.4% and 64.2%

Summary

The data presented in the tables in this report suggest a continuing improvement in retention among segments of the University's first-time freshman population. Overall retention rates show a very slight decline after seven straight years of improvement. While not a precipitous decline, it merits watching.

Questions regarding the data in these tables should be directed to the Office of Institutional Research and Planning.

TABLE 1: ENROLLMENT, DROPOUT RATES AND GRADUATION RATES
FOR FIRST-TIME FRESHMEN ON THE NEWARK CAMPUS (TOTAL)

	Enrollment and Dropout Rates						Graduation Rates			
Entering Fall Term	1st Fall	2nd Fall	3rd Fall	4th Fall	5th Fall	After 5th Year	within 3 yrs	within 4 yrs	within 5 yrs	Total
1979 N	3341	2780	2419	2258	627	174	29	1624	2114	2249
% enrollment	100.0%	83.2%	72.4%	67.6%	18.8%	5.2%	0.9%	48.6%	63.3%	67.3%
% dropout	0.0%	16.8%	27.6%	31.5%	32.6%	27.5%				
1980 N	3379	2777	2376	2248	639	186	13	1572	2056	2193
%enrollment	100.0%	82.2%	70.3%	66.5%	18.9%	5.5%	0.4%	46.5%	60.8%	64.9%
% dropout	0.0%	17.8%	29.7%	33.1%	34.6%	29.6%				
1981 N	2954	2379	2100	1967	587	143	27	1335	1802	1903
% enrollment	100.0%	80.5%	71.1%	66.6%	19.9%	4.8%	0.9%	45.2%	61.0%	64.4%
% dropout	0.0%	19.5%	28.9%	32.5%	34.9%	30.7%				
1982 N	3237	2670	2370	2237	671	147	27	1541	2060	2153
% enrollment	100.0%	82.5%	73.2%	69.1%	20.7%	4.5%	0.8%	47.6%	63.6%	66.5%
% dropout	0.0%	17.5%	26.8%	30.1%	31.7%	28.9%				
1983 N	2993	2501	2204	2106	651	145	16	1432	1937	2012
% enrollment	100.0%	83.6%	73.6%	70.4%	21.8%	4.8%	0.5%	47.8%	64.7%	67.2%
% dropout	0.0%	16.4%	26.4%	29.1%	30.4%	27.9%				
1984 N	3395	2840	2539	2438	707	138	11	1709	2253	2253
% enrollment	100.0%	83.7%	74.8%	71.8%	20.8%	4.1%	0.3%	50.3%	66.4%	66.4%
% dropout	0.0%	16.3%	25.2%	27.9%	28.8%	29.6%				
1985 N	3122	2633	2384	2293	796	0	15	1482	0	1482
% enrollment	100.0%	84.3%	76.4%	73.4%	25.5%	0.0%	0.5%	47.5%	0.0%	47.5%
% dropout	0.0%	15.7%	23.6%	26.1%	27.0%	0.0%				
1986 N	3323	2849	2578	2480	0	0	15	0	0	15
% enrollment	100.0%	85.7%	77.6%	74.6%	0.0%	0.0%	0.5%	0.0%	0.0%	0.5%
% dropout	0.0%	14.3%	22.4%	24.9%	0.0%	0.0%				
1987 N	3174	2768	2484	0	0	0	4	0	0	4
% enrollment	100.0%	87.2%	78.3%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.1%
% dropout	0.0%	12.8%	21.7%	0.0%	0.0%	0.0%				
1988 N	3304	2854	0	0	0	0	0	0	0	0
% enrollment	100.0%	86.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
% dropout	0.0%	13.6%	0.0%	0.0%	0.0%	0.0%				

TABLE 2: ENROLLMENT, DROPOUT RATES AND GRADUATION RATES
FOR FIRST-TIME FRESHMEN ON THE NEWARK CAMPUS (RESIDENT)

Entering Fall Term		Enrollment and Dropout Rates: 1st Fall	2nd Fall	3rd Fall	4th Fall	5th Fall	After 5th Year	Graduation Rates: within 3 yrs	within 4 yrs	within 5 yrs	Total
1979	N	1538	1214	1045	947	391	132	19	554	846	943
	% enrollment	100.0%	78.9%	67.9%	61.6%	25.4%	8.6%	1.2%	36.0%	55.0%	61.3%
	% dropout	0.0%	21.1%	32.1%	37.2%	38.6%	30.1%				
1980	N	1567	1191	997	934	390	136	6	518	794	890
	%enrollment	100.0%	76.0%	63.6%	59.6%	24.9%	8.7%	0.4%	33.1%	50.7%	56.8%
	% dropout	0.0%	24.0%	36.4%	40.0%	42.1%	34.5%				
1981	N	1427	1105	952	879	354	103	13	501	767	836
	% enrollment	100.0%	77.4%	66.7%	61.6%	24.8%	7.2%	0.9%	35.1%	53.7%	58.6%
	% dropout	0.0%	22.6%	33.3%	37.5%	40.1%	34.2%				
1982	N	1337	1057	939	869	374	95	13	485	758	814
	% enrollment	100.0%	79.1%	70.2%	65.0%	28.0%	7.1%	1.0%	36.3%	56.7%	60.9%
	% dropout	0.0%	20.9%	29.8%	34.0%	35.8%	32.0%				
1983	N	1194	935	811	766	361	109	9	391	650	704
	% enrollment	100.0%	78.3%	67.9%	64.2%	30.2%	9.1%	0.8%	32.7%	54.4%	59.0%
	% dropout	0.0%	21.7%	32.1%	35.1%	37.0%	31.9%				
1984	N	1108	870	758	729	337	87	6	390	624	624
	% enrollment	100.0%	78.5%	68.4%	65.8%	30.4%	7.9%	0.5%	35.2%	56.3%	56.3%
	% dropout	0.0%	21.5%	31.6%	33.7%	34.4%	35.8%				
1985	N	1146	931	818	785	430	0	6	355	0	355
	% enrollment	100.0%	81.2%	71.4%	68.5%	37.5%	0.0%	0.5%	31.0%	0.0%	31.0%
	% dropout	0.0%	18.8%	28.6%	31.0%	31.5%	0.0%				
1986	N	1079	887	781	751	0	0	7	0	0	7
	% enrollment	100.0%	82.2%	72.4%	69.6%	0.0%	0.0%	0.6%	0.0%	0.0%	0.6%
	% dropout	0.0%	17.8%	27.6%	29.7%	0.0%	0.0%				
1987	N	1113	925	813	0	0	0	3	0	0	3
	% enrollment	100.0%	83.1%	73.0%	0.0%	0.0%	0.0%	0.3%	0.0%	0.0%	0.3%
	% dropout	0.0%	16.9%	27.0%	0.0%	0.0%	0.0%				
1988	N	1053	859	0	0	0	0	0	0	0	0
	% enrollment	100.0%	81.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	% dropout	0.0%	18.4%	0.0%	0.0%	0.0%	0.0%				

TABLE 3: ENROLLMENT, DROPOUT RATES AND GRADUATION RATES
FOR FIRST-TIME FRESHMEN ON THE NEWARK CAMPUS (NON-RESIDENT)

Entering Fall Term		Enrollment and Dropout Rates						Graduation Rates			
		1st Fall	2nd Fall	3rd Fall	4th Fall	5th Fall	After 5th Year	within 3 yrs	within 4 yrs	within 5 yrs	Total
1979	N	1803	1566	1374	1311	236	42	10	1070	1268	1306
	% enrollment	100.0%	86.9%	76.2%	72.7%	13.1%	2.3%	0.6%	59.3%	70.3%	72.4%
	% dropout	0.0%	13.1%	23.8%	26.7%	27.6%	25.2%				
1980	N	1812	1586	1379	1314	249	50	7	1054	1262	1303
	%enrollment	100.0%	87.5%	76.1%	72.5%	13.7%	2.8%	0.4%	58.2%	69.6%	71.9%
	% dropout	0.0%	12.5%	23.9%	27.1%	28.1%	25.3%				
1981	N	1527	1274	1148	1088	233	40	14	834	1035	1067
	% enrollment	100.0%	83.4%	75.2%	71.3%	15.3%	2.6%	0.9%	54.6%	67.8%	69.9%
	% dropout	0.0%	16.6%	24.8%	27.8%	30.1%	27.5%				
1982	N	1900	1613	1431	1368	297	52	14	1056	1302	1339
	% enrollment	100.0%	84.9%	75.3%	72.0%	15.6%	2.7%	0.7%	55.6%	68.5%	70.5%
	% dropout	0.0%	15.1%	24.7%	27.3%	28.8%	26.8%				
1983	N	1799	1566	1393	1340	290	36	7	1041	1287	1308
	% enrollment	100.0%	87.0%	77.4%	74.5%	16.1%	2.0%	0.4%	57.9%	71.5%	72.7%
	% dropout	0.0%	13.0%	22.6%	25.1%	26.0%	25.3%				
1984	N	2287	1970	1781	1709	370	51	5	1319	1629	1629
	% enrollment	100.0%	86.1%	77.9%	74.7%	16.2%	2.2%	0.2%	57.7%	71.2%	71.2%
	% dropout	0.0%	13.9%	22.1%	25.1%	26.1%	26.5%				
1985	N	1976	1702	1566	1508	366	0	9	1127	0	1127
	% enrollment	100.0%	86.1%	79.3%	76.3%	18.5%	0.0%	0.5%	57.0%	0.0%	57.0%
	% dropout	0.0%	13.9%	20.7%	23.2%	24.4%	0.0%				
1986	N	2244	1962	1797	1729	0	0	8	0	0	8
	% enrollment	100.0%	87.4%	80.1%	77.0%	0.0%	0.0%	0.4%	0.0%	0.0%	0.4%
	% dropout	0.0%	12.6%	19.9%	22.6%	0.0%	0.0%				
1987	N	2061	1843	1671	0	0	0	1	0	0	1
	% enrollment	100.0%	89.4%	81.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	% dropout	0.0%	10.6%	18.9%	0.0%	0.0%	0.0%				
1988	N	2251	1995	0	0	0	0	0	0	0	0
	% enrollment	100.0%	88.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	% dropout	0.0%	11.4%	0.0%	0.0%	0.0%	0.0%				

TABLE 4: ENROLLMENT, DROPOUT RATES AND GRADUATION RATES
FOR FIRST-TIME FRESHMEN ON THE NEWARK CAMPUS (WHITE)

Entering Fall Term		Enrollment and Dropout Rates: 1st Fall	2nd Fall	3rd Fall	4th Fall	5th Fall	After 5th Year	Graduation Rates: within 3 yrs	within 4 yrs	within 5 yrs	Total
1979	N	3192	2657	2326	2179	592	165	25	1577	2045	2172
	% enrollment	100.0%	83.2%	72.9%	68.3%	18.5%	5.2%	0.8%	49.4%	64.1%	68.0%
	% dropout	0.0%	16.8%	27.1%	31.0%	32.0%	26.8%				
1980	N	3221	2664	2295	2177	609	175	11	1533	1999	2128
	%enrollment	100.0%	82.7%	71.3%	67.6%	18.9%	5.4%	0.3%	47.6%	62.1%	66.1%
	% dropout	0.0%	17.3%	28.7%	32.1%	33.5%	28.5%				
1981	N	2771	2246	2004	1885	555	135	24	1284	1732	1829
	% enrollment	100.0%	81.1%	72.3%	68.0%	20.0%	4.9%	0.9%	46.3%	62.5%	66.0%
	% dropout	0.0%	18.9%	27.7%	31.1%	33.6%	29.1%				
1982	N	3036	2513	2235	2108	612	139	24	1478	1954	2043
	% enrollment	100.0%	82.8%	73.6%	69.4%	20.2%	4.6%	0.8%	48.7%	64.4%	67.3%
	% dropout	0.0%	17.2%	26.4%	29.8%	31.2%	28.1%				
1983	N	2803	2364	2094	2006	610	134	14	1379	1856	1927
	% enrollment	100.0%	84.3%	74.7%	71.6%	21.8%	4.8%	0.5%	49.2%	66.2%	68.7%
	% dropout	0.0%	15.7%	25.3%	27.9%	29.0%	26.5%				
1984	N	3177	2665	2390	2301	657	122	11	1629	2144	2144
	% enrollment	100.0%	83.9%	75.2%	72.4%	20.7%	3.8%	0.3%	51.3%	67.5%	67.5%
	% dropout	0.0%	16.1%	24.8%	27.2%	28.0%	28.7%				
1985	N	2882	2448	2215	2135	717	0	12	1406	0	1406
	% enrollment	100.0%	84.9%	76.9%	74.1%	24.9%	0.0%	0.4%	48.8%	0.0%	48.8%
	% dropout	0.0%	15.1%	23.1%	25.5%	26.3%	0.0%				
1986	N	3124	2681	2434	2344	0	0	15	0	0	15
	% enrollment	100.0%	85.8%	77.9%	75.0%	0.0%	0.0%	0.5%	0.0%	0.0%	0.5%
	% dropout	0.0%	14.2%	22.1%	24.5%	0.0%	0.0%				
1987	N	2953	2577	2317	0	0	0	4	0	0	4
	% enrollment	100.0%	87.3%	78.5%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.1%
	% dropout	0.0%	12.7%	21.5%	0.0%	0.0%	0.0%				
1988	N	3064	2654	0	0	0	0	0	0	0	0
	% enrollment	100.0%	86.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	% dropout	0.0%	13.4%	0.0%	0.0%	0.0%	0.0%				

TABLE 5: ENROLLMENT, DROPOUT RATES AND GRADUATION RATES
FOR FIRST-TIME FRESHMEN ON THE NEWARK CAMPUS (BLACK)

Entering Fall Term		Enrollment and Dropout Rates: 1st Fall	2nd Fall	3rd Fall	4th Fall	5th Fall	After 5th Year	Graduation Rates: within 3 yrs	within 4 yrs	within 5 yrs	Total
1979	N	87	70	46	37	19	3	0	16	30	32
	% enrollment	100.0%	80.5%	52.9%	42.5%	21.8%	3.4%	0.0%	18.4%	34.5%	36.8%
	% dropout	0.0%	19.5%	47.1%	57.5%	59.8%	59.8%				
1980	N	84	58	40	33	17	5	0	14	22	26
	%enrollment	100.0%	69.0%	47.6%	39.3%	20.2%	6.0%	0.0%	16.7%	26.2%	31.0%
	% dropout	0.0%	31.0%	52.4%	60.7%	63.1%	63.1%				
1981	N	103	71	47	37	17	5	1	19	27	30
	% enrollment	100.0%	68.9%	45.6%	35.9%	16.5%	4.9%	1.0%	18.4%	26.2%	29.1%
	% dropout	0.0%	31.1%	54.4%	63.1%	65.0%	66.0%				
1982	N	114	91	75	71	36	5	1	31	56	58
	% enrollment	100.0%	79.8%	65.8%	62.3%	31.6%	4.4%	0.9%	27.2%	49.1%	50.9%
	% dropout	0.0%	20.2%	34.2%	36.8%	41.2%	44.7%				
1983	N	117	82	71	66	29	6	0	31	50	53
	% enrollment	100.0%	70.1%	60.7%	56.4%	24.8%	5.1%	0.0%	26.5%	42.7%	45.3%
	% dropout	0.0%	29.9%	39.3%	43.6%	48.7%	49.6%				
1984	N	146	116	95	87	37	14	0	46	65	65
	% enrollment	100.0%	79.5%	65.1%	59.6%	25.3%	9.6%	0.0%	31.5%	44.5%	44.5%
	% dropout	0.0%	20.5%	34.9%	40.4%	43.2%	45.9%				
1985	N	161	122	112	108	57	0	1	45	0	45
	% enrollment	100.0%	75.8%	69.6%	67.1%	35.4%	0.0%	0.6%	28.0%	0.0%	28.0%
	% dropout	0.0%	24.2%	30.4%	32.3%	36.6%	0.0%				
1986	N	117	98	77	73	0	0	0	0	0	0
	% enrollment	100.0%	83.8%	65.8%	62.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	% dropout	0.0%	16.2%	34.2%	37.6%	0.0%	0.0%				
1987	N	134	118	101	0	0	0	0	0	0	0
	% enrollment	100.0%	88.1%	75.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	% dropout	0.0%	11.9%	24.6%	0.0%	0.0%	0.0%				
1988	N	147	126	0	0	0	0	0	0	0	0
	% enrollment	100.0%	85.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	% dropout	0.0%	14.3%	100.0%	0.0%	0.0%	0.0%				

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TABLE 6: ENROLLMENT, DROPOUT RATES AND GRADUATION RATES
FOR FIRST-TIME FRESHMEN ON THE NEWARK CAMPUS (MEN)

Entering Fall Term		Enrollment and Dropout Rates: 1st Fall	2nd Fall	3rd Fall	4th Fall	5th Fall	After 5th Year	Graduation Rates: within 3 yrs	within 4 yrs	within 5 yrs	Total
1979	N	1480	1177	1025	946	344	99	9	593	862	943
	% enrollment	100.0%	79.5%	69.3%	63.9%	23.2%	6.7%	0.6%	40.1%	58.2%	63.7%
	% dropout	0.0%	20.5%	30.7%	35.5%	36.7%	29.6%				
1980	N	1486	1186	988	943	356	104	6	573	838	924
	%enrollment	100.0%	79.8%	66.5%	63.5%	24.0%	7.0%	0.4%	38.6%	56.4%	62.2%
	% dropout	.0.0%	20.2%	33.5%	36.1%	37.5%	30.8%				
1981	N	1282	991	863	817	306	79	13	485	718	774
	% enrollment	100.0%	77.3%	67.3%	63.7%	23.9%	6.2%	1.0%	37.8%	56.0%	60.4%
	% dropout	0.0%	22.7%	32.7%	35.3%	38.3%	33.5%				
1982	N	1427	1118	999	947	334	79	9	596	841	895
	% enrollment	100.0%	78.3%	70.0%	66.4%	23.4%	5.5%	0.6%	41.8%	58.9%	62.7%
	% dropout	0.0%	21.7%	30.0%	33.0%	34.8%	31.7%				
1983	N	1230	1013	893	846	326	75	5	500	751	790
	% enrollment	100.0%	82.4%	72.6%	68.8%	26.5%	6.1%	0.4%	40.7%	61.1%	64.2%
	% dropout	0.0%	17.6%	27.4%	30.8%	32.8%	29.7%				
1984	N	1414	1156	1043	997	386	86	4	600	889	889
	% enrollment	100.0%	81.8%	73.8%	70.5%	27.3%	6.1%	0.3%	42.4%	62.9%	62.9%
	% dropout	0.0%	18.2%	26.2%	29.2%	30.3%	31.0%				
1985	N	1266	1049	949	920	396	0	5	508	0	508
	% enrollment	100.0%	82.9%	75.0%	72.7%	31.3%	0.0%	0.4%	40.1%	0.0%	40.1%
	% dropout	0.0%	17.1%	25.0%	26.9%	28.6%	0.0%				
1986	N	1431	1188	1072	1016	0	0	9	0	0	9
	% enrollment	100.0%	83.0%	74.9%	71.0%	0.0%	0.0%	0.4%	0.0%	0.0%	0.6%
	% dropout	0.0%	17.0%	25.1%	28.4%						
1987	N	1348	1148	1030	0	0	0	3	0	0	3
	% enrollment	100.0%	85.2%	76.4%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.2%
	% dropout	0.0%	14.8%	23.6%	0.0%	0.0%	0.0%				
1988	N	1402	1214	0	0	0	0	0	0	0	0
	% enrollment	100.0%	86.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	% dropout	0.0%	13.4%	0.0%	0.0%	0.0%	0.0%				

TABLE 7: ENROLLMENT, DROPOUT RATES AND GRADUATION RATES
FOR FIRST-TIME FRESHMEN IN THE NEWARK CAMPUS (WOMEN)

Entering Fall Term		Enrollment and Dropout Rates: 1st Fall	2nd Fall	3rd Fall	4th Fall	5th Fall	After 5th Year	Graduation Rates: within 3 yrs	within 4 yrs	within 5 yrs	Total
1979	N	1861	1603	1394	1312	283	73	20	1031	1252	1306
	% enrollment	100.0%	86.1%	74.9%	70.5%	15.2%	3.9%	1.1%	55.4%	67.3%	70.2%
	% dropout	0.0%	13.9%	25.1%	28.4%	29.4%	25.9%				
1980	N	1893	1591	1388	1305	283	80	7	999	1218	1269
	%enrollment	100.0%	84.0%	73.3%	68.9%	14.9%	4.2%	0.4%	52.8%	64.3%	67.0%
	% dropout	0.0%	16.0%	26.7%	30.7%	32.3%	28.7%				
1981	N	1672	1388	1237	1150	281	64	14	850	1084	1129
	% enrollment	100.0%	83.0%	74.0%	68.8%	16.8%	3.8%	0.8%	50.8%	64.8%	67.5%
	% dropout	0.0%	17.0%	26.0%	30.4%	32.4%	28.6%				
1982	N	1810	1552	1371	1290	337	68	18	945	1219	1258
	% enrollment	100.0%	85.7%	75.7%	71.3%	18.6%	3.8%	1.0%	52.2%	67.3%	69.5%
	% dropout	0.0%	14.3%	24.3%	27.7%	29.2%	26.7%				
1983	N	1763	1488	1311	1260	325	70	11	932	1186	1222
	% enrollment	100.0%	84.4%	74.4%	71.5%	18.4%	4.0%	0.6%	52.9%	67.3%	69.3%
	% dropout	0.0%	15.6%	25.6%	27.9%	28.7%	26.7%				
1984	N	1981	1684	1496	1441	321	52	7	1109	1364	1364
	% enrollment	100.0%	85.0%	75.5%	72.7%	16.2%	2.6%	0.4%	56.0%	68.9%	68.9%
	% dropout	0.0%	15.0%	24.5%	26.9%	27.8%	28.5%				
1985	N	1856	1584	1435	1373	400	0	10	974	0	974
	% enrollment	100.0%	85.3%	77.3%	74.0%	21.6%	0.0%	0.5%	52.5%	0.0%	52.5%
	% dropout	0.0%	14.7%	22.7%	25.5%	26.0%	0.0%				
1986	N	1892	1661	1506	1464	0	0	6	0	0	6
	% enrollment	100.0%	87.8%	79.6%	77.4%	0.0%	0.0%	0.3%	0.0%	0.0%	0.3%
	% dropout	0.0%	12.2%	20.4%	22.3%	0.0%	0.0%				
1987	N	1826	1620	1454	0	0	0	1	0	0	1
	% enrollment	100.0%	88.7%	79.6%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.1%
	% dropout	0.0%	11.3%	20.4%	0.0%	0.0%	0.0%				
1988	N	1902	1640	0	0	0	0	0	0	0	0
	% enrollment	100.0%	86.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	% dropout	0.0%	13.8%	0.0%	0.0%	0.0%	0.0%				

APPENDIX G

ACADEMIC ACTIVITIES REPORT FOR ACADEMIC TERM _____

SOCIAL SECURITY NUMBER
PERSONNEL CLASS
UNIVERSITY APPOINTMENT %

DEPARTMENT
NAME
RANK/TITLE

I CERTIFY THAT THIS DISTRIBUTION OF TIME OR EFFORT REPRESENTS A REASONABLE ESTIMATE OF THE EFFORT (TIME) EXPENDED BY ME/THIS EMPLOYEE DURING THE PERIOD COVERED BY THIS REPORT.

SIGNATURES	FACULTY/PROFESSIONAL	DATE	CHAIR/SUPERVISOR	DATE

FACULTY/PROFESSIONAL EFFORT APPORTIONMENT F/PEA

THIS SECTION TO BE COMPLETED BY CHAIR/SUPERVISOR	PERCENT EFFORT ALL FUNDS	PERCENT RECURRING FUNDS	PERCENT NON-RECURRING FUNDS	PERCENT CONTRACTS AND GRANTS	PERCENT OTHER FUNDS
I. INSTRUCTIONAL ACTIVITIES					
II. RESEARCH/SCHOLARLY ACTIVITIES SPONSOR AND UNIVERSITY FUNDED					
III. PUBLIC SERVICE ACTIVITIES SPONSOR AND UNIVERSITY FUNDED					
IV. ADMINISTRATIVE ACTIVITY AND SERVICE TO THE UNIVERSITY					
TOTALS					

I. INSTRUCTIONAL ACTIVITIES (REFER TO I. IN F/PEA)

SECTION 1.
SCHEDULED TEACHING AND SUPERVISION

COURSE SEQUENCE NUMBER	SECTION #	SECTION TYPE	COURSE CREDIT HOURS	CLASS CONTACT HRS./WEEK	NUMBER OF STUDENTS	O/L	IF SHARED INSTRUCTION FAC	STA	NAME(S)

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ACADEMIC ACTIVITIES REPORT

SOCIAL SECURITY NUMBER NAME

I. INSTRUCTIONAL ACTIVITIES CONTINUED

SEE TOTAL PAGE 1

SECTION 2. UNSCHEDULED ASSIGNMENTS RELATED TO INSTRUCTION

CHECK THOSE THAT APPLY:

- THESIS COMMITTEE AND OTHER NON-RESEARCH THESIS RELATED ACTIVITIES ☐
- DISSERTATION COMMITTEE AND OTHER NON-RESEARCH DISSERTATION RELATED ACTIVITIES ☐
- SUPERVISION OF GRADUATE TEACHING ASSISTANTS ☐
- GUEST SEMINARS AND LECTURES AT U OF D ☐
- COURSE AND CURRICULUM DEVELOPMENT ☐
- OTHER (DESCRIBE BRIEFLY) ☐

SECTION 3. ACADEMIC ADVISING OF STUDENTS

NUMBER OF UNDERGRADUATE ADVISEES

NUMBER OF GRADUATE ADVISEES

SECTION 4. SPONSORED INSTRUCTIONAL PROJECTS

ACCOUNT CODE	PROJECT TITLE	PROPOSED EFFORT	ACTUAL EFFORT

II. RESEARCH/SCHOLARLY ACTIVITIES (REFER TO II. IN F/PEA)

SECTION 5. SPONSOR RELATED RESEARCH

ACCOUNT CODE	PROJECT TITLE	PROPOSED EFFORT	ACTUAL EFFORT

SECTION 6. UNIVERSITY DEPARTMENTAL RESEARCH (INCLUDE SCHOLARLY/CREATIVE ACTIVITIES)

INCLUDE HERE ALL RESEARCH AND SCHOLARLY ACTIVITIES WHICH ARE NOT FUNDED BY OUTSIDE SOURCES

GENERAL AREA OF ACTIVITY

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ACADEMIC ACTIVITIES REPORT

SOCIAL SECURITY NUMBER NAME

III. PUBLIC SERVICE ACTIVITIES (REFER TO III. IN F/PEA)

SECTION 7.
SPONSOR RELATED EXTENSION ACTIVITIES

ACCOUNT CODE	PROJECT TITLE	PROPOSED EFFORT	ACTUAL EFFORT

SECTION 8.
UNIVERSITY FUNDED EXTENSION ACTIVITIES

INCLUDE HERE ALL EXTENSION ACTIVITIES WHICH ARE NOT FUNDED BY OUTSIDE SOURCES.

EXTENSION ACTIVITIES PROJECT TITLE

SECTION 9.
UNIVERSITY FUNDED PUBLIC SERVICE

CHECK THOSE THAT APPLY:

- PUBLIC PERFORMANCES OR LECTURES ☐
- SERVICE TO PROFESSIONAL ORGANIZATIONS ☐
- SERVICE TO GOVERNMENT ☐
- OTHER (DESCRIBE BRIEFLY) ☐

IV. ADMINISTRATIVE ACTIVITY AND SERVICE TO THE UNIVERSITY (REFER TO IV. IN F/PEA)

SECTION 10.
PROPOSAL PREPARATION

SECTION 11.
COMMITTEES

CHECK THOSE THAT APPLY:

- COLLEGE/DEPARTMENT COMMITTEES ☐
- UNIVERSITY COMMITTEE ☐
- OTHER (DESCRIBE BRIEFLY) ☐

SECTION 12.
DEPARTMENTAL AND COLLEGE ADMINISTRATION
(CHAIRS, DEANS AND OTHER ACADEMIC ADMINISTRATORS ONLY)

SPECIAL NOTES:

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APPENDIX H

Statements of Current Funds Revenues, Expenditures, Transfers and Changes in Fund Balances
(Thousands of Dollars)

Year ended June 30, 19 with Comparative Amounts for 19

	1987			1986
	Unrestricted	Restricted	Total	Total
Revenues:				
Tuition and fees	$ 68,892	-	68,892	61,567
Government appropriations:				
State	51,237	5,737	56,974	53,812
Federal	40	2,626	2,666	2,294
Contracts and grants:				
State	245	2,766	3,011	2,724
Federal	3,156	14,597	17,753	16,282
Other	534	3,434	3,968	2,988
Gifts	578	7,349	7,927	7,060
Endowments	13,029	2,391	15,420	15,245
Temporary investments	4,664	1,177	5,841	6,374
Activities of educational departments	2,064	-	2,064	2,074
Other sources:				
User service charges	2,021	-	2,021	1,678
Campus conferences	3,673	-	3,673	3,311
Rentals	493	-	493	330
Computing services	533	-	533	510
Miscellaneous	1,794	-	1,794	3,671
Auxiliary operations	31,232	-	31,232	29,336
Total revenues	$ 184,185	40,077	224,262	209,256
Expenditures, transfers and changes in fund balances:				
Educational and general:				
Instruction and departmental research	$ 79,291	6,743	86,034	79,469
Sponsored research	2,941	18,423	21,364	18,860
Extension and public service	5,940	3,623	9,563	8,834
Academic support	9,993	605	10,598	9,388
Primary programs	98,165	29,394	127,559	116,551
Student services	7,455	280	7,735	6,954
Operations and maintenance of plant	13,721	155	13,876	13,181
General institutional support	15,933	300	16,233	14,325
Support programs	37,109	735	37,844	34,460
Student aid	2,946	6,846	9,792	9,016
Subtotal expenditures	138,220	36,975	175,195	160,027
Mandatory transfers to (from) other funds:				
Principal and interest	2,298	4	2,302	2,579
Loan funds matching grants	20	-	20	22
Other transfers to (from) other funds:				
Restricted funds	39	(39)	-	-
Loan funds	-	-	-	(70)
Endowment and similar funds	3,227	1,006	4,233	5,844
Unexpended plant funds	2,836	1,318	4,154	7,503
Renewal and replacement funds	3,141	-	3,141	1,859
Retirement of indebtedness	95	-	95	109
Changes in fund balances:				
Allocations to current funds	17,338	-	17,338	13,497
Allocations from current funds	(12,329)	-	(12,329)	(9,873)
Changes in restricted fund balances	-	780	780	130
Transfers and allocations	16,665	3,069	19,734	21,600
Total educational and general	$ 154,885	40,044	194,929	181,627
Auxiliary operations:				
Expenditures	$ 24,532	33	24,565	22,350
Mandatory transfers to other funds:				
Principal and interest	2,673	-	2,673	2,305
Other transfers to other funds:				
Renewal and replacement funds	2,104	-	2,104	3,087
Changes in fund balances:				
Allocations to current funds	53	-	53	106
Allocations from current funds	(62)	-	(62)	(219)
Total auxiliary operations	$ 29,300	33	29,333	27,629
Total current funds expenditures, transfers and changes in fund balances	$ 184,185	40,077	224,262	209,256

See accompanying summary of significant accounting policies and notes to financial statements.

Balance Sheets
June 30, 19 with Comparative Amounts for 19
(Thousands of Dollars)

Assets	1987	1986
Current funds:		
Unrestricted and University allocated:		
Cash	$ 2,301	655
Investments	52,820	48,611
Accounts and investment income receivable	4,647	5,011
Inventories	3,108	2,591
Prepaid expenses	376	925
	63,252	57,793
Restricted:		
Cash	60	56
Investments	16,062	16,146
Investment income and grants receivable	3,492	2,801
	19,614	19,003
Total current funds	$ 82,866	76,796
Loan funds:		
Cash	$ 105	6
Investments	4,586	4,263
Accrued interest receivable	44	10
Notes and accounts receivable, net	11,818	12,227
Total loan funds	$ 16,553	16,506
Endowment and similar funds:		
Cash	$ -	1
Investment income receivable	484	543
Permanent investments	171,445	161,326
Total endowment and similar funds	$171,929	161,870
Plant funds:		
Unexpended plant funds:		
Cash	$ 432	133
Investments	8,804	14,278
Government and other receivables	1,707	489
	10,943	14,900
Renewal and replacement funds - investments	18,805	13,606
Retirement of indebtedness funds:		
Investments	1,641	2,394
	1,641	2,394
Investment in plant:		
Land and improvements	19,237	18,887
Buildings	218,619	212,035
Equipment and furnishings	124,414	110,636
	362,270	341,558
Total plant funds	$393,659	372,458

See accompanying summary of significant accounting policies and notes to financial statem

Liabilities and Fund Balances	1987	1986
Current funds:		
Unrestricted and University allocated:		
Notes payable	$ 1,132	1,385
Accounts payable and accrued expenses	18,061	17,505
Students' deposits	1,412	1,403
Deferred revenue	1,508	1,361
Fund balances - allocated	41,139	36,139
	63,252	57,793
Restricted:		
Accounts payable	391	560
Fund balances	19,223	18,443
	19,614	19,003
Total current funds	$ 82,866	76,796
Loan funds:		
Accrued interest payable	$ 134	147
Mortgage program bonds payable	5,025	5,556
Principal of funds:		
Government programs	8,154	7,854
University programs	3,240	2,949
Total loan funds	$ 16,553	16,506
Endowment and similar funds:		
Accounts payable	$ 12	37
Principal of funds:		
Endowment funds, unrestricted as to income	5,274	5,038
Endowment funds, restricted as to income	22,295	20,191
Unrestricted funds functioning as endowment	136,356	129,133
Restricted funds functioning as endowment	6,497	6,046
Life income funds	1,495	1,425
Total endowment and similar funds	$171,929	161,870
Plant funds:		
Unexpended plant funds:		
Accounts and notes payable	$ 2,547	3,263
Fund balances:		
Restricted	3,806	2,565
Unrestricted	4,590	9,072
	10,943	14,900
Renewal and replacement funds-fund balances-unrestricted	18,805	13,606
Retirement of indebtedness funds:		
Accrued interest payable	182	188
Fund balances - unrestricted	1,459	2,206
	1,641	2,394
Investment in plant:		
Notes payable	6,289	8,276
Housing and dining system revenue bonds payable	22,939	23,889
Net investment in plant	333,042	309,393
	362,270	341,558
Total plant funds	$393,659	372,458

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Statement of Changes in Fund Balances
(Thousands of Dollars)

Year ended June 30, 19

	Current funds			Loan funds	Endowment and similar funds	Plant funds			
	Unallocated	Allocated	Restricted			Unexpended	Renewal and replacement	Retirement of indebtedness	Net investment in plant
Fund balance at beginning of year	$ -	36,139	18,443	10,803	161,833	11,637	13,606	2,206	309,393
Revenue and other additions:									
Unrestricted current funds	184,185	-	-	-	-	-	-	-	-
Gifts and bequests - restricted	-	-	7,349	5	853	1,485	-	-	341
Contracts and grants - restricted	-	-	24,732	-	-	-	-	44	-
Government appropriations - Federal restricted	-	-	2,626	-	-	31	-	-	-
Government appropriations - State restricted	-	-	5,737	-	-	2,389	-	-	-
Temporary investments	-	-	1,177	343	-	121	-	144	-
Endowment - restricted	-	-	2,391	1	18	-	-	-	-
Realized gains on investments - unrestricted	-	-	-	-	4,231	-	-	-	-
Realized gains on investments - restricted	-	-	-	-	749	-	-	-	-
Interest on loans receivable	-	-	-	431	-	-	-	-	-
U.S. Government advances	-	-	-	181	-	-	-	-	-
Repayment of notes and bonds payable	-	-	-	-	-	-	-	-	4,292
Expended for plant facilities - net of disposals (including $12,417 charged to current funds expenditures)	-	-	-	-	-	-	-	-	30,371
Proceeds from loans	-	-	-	-	-	1,308	-	-	-
Other	-	-	-	19	-	33	-	47	-
Total revenues and other additions	184,185	-	44,012	980	5,851	5,367	-	235	35,004
Expenditures and other deductions:									
Educational and general expenditures	138,220	-	36,975	-	-	-	-	-	-
Auxiliary operations expenditures	24,532	-	33	-	-	-	-	-	-
Indirect costs recovered	-	-	3,935	-	-	-	-	-	-
Loan cancellations	-	-	-	42	-	-	-	-	-
Expended for plant facilities	-	-	-	-	-	8,184	606	-	-
Expended for plant facilities - not capitalized	-	-	-	-	-	2,659	1,146	-	-
Retirement of indebtedness	-	-	-	-	-	-	-	4,137	-
Interest on indebtedness	-	-	-	280	-	-	-	1,476	-
Increase in notes payable	-	-	-	-	-	-	-	-	1,355
Other	-	-	-	59	-	224	-	456	-
Total expenditures and other deductions	162,752	-	40,943	381	-	11,067	1,752	6,069	1,355
Transfers and allocations among funds - additions (deductions):									
Mandatory transfers for:									
Principal and interest	(4,723)	(248)	(4)	-	-	-	-	4,975	-
Loan funds matching grant	(20)	-	-	20	-	-	-	-	-
Other transfers	(11,063)	(379)	(2,285)	(28)	4,233	2,459	6,951	112	-
Allocations	(5,627)	5,627	-	8	-	-	-	-	-
Total transfers and allocations	(21,433)	5,000	(2,289)	(8)	4,233	2,459	6,951	5,087	-
Net increase (decrease) for the year	-	5,000	780	591	10,084	(3,241)	5,199	(747)	23,649
Fund balance at end of year	$ -	41,139	19,223	11,394	171,917	8,396	18,805	1,459	333,042

See accompanying summary of significant accounting policies and notes to financial statements.

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APPENDIX I

FINANCE

Form Approved
OMB No. 1850-0582
Approval Expires 2/92

UNIVERSITY OF DELAWARE

NEWARK DE 19716

Identification No. 130943
Name of Respondent:
Title:
Phone Number:

This Report Covers Finance Activity for the 12-month Fiscal Year, Beginning ____ (Month, 2 digits) 19__ (Year) Ending ____ (Month, 2 digits) 19__ (Year).

Part A - CURRENT FUNDS REVENUES BY SOURCE

Source of Funds	Line No.	Amount (whole dollars) Unrestricted (1)	Restricted (2)	Total (3)
Tuition and Fees	01	$	$	$
Government Appropriations*				
Federal *	02			
Through State Channels* $	03			
State*	04			
Local*	05			
Government Grants and Contracts*				
Federal*	06			
State*	07			
Local*	08			
Private Gifts, Grants, and Contracts*	09			
Endowment Income*	10			
Sales and Services of Educational Activities*	11			
Auxiliary Enterprises*	12			
Hospitals**	13			
Other Sources*	14			
Independent Operations*	15			
TOTAL CURRENT FUNDS REVENUES (sum of lines 1, 2, 4-15)	16	$	$	$

* Excludes appropriations, gifts, grants, endowment, and sales and services for hospitals only (not Medical Schools). Report exclusions for hospitals on line 13.

** Amounts relating to the hospitals only. If an entry is made on this line, please complete Part J. Medical School revenues should be reported on lines 1 through 12 and 14-15 as appropriate.

Part B - CURRENT FUNDS EXPENDITURES AND TRANSFERS

Function of Expenditures	Line No.	Amount (whole dollars) Unrestricted (1)	Restricted (2)	Total (3)	Amount for Salaries and Wages Without Employee Fringe Benefits (included in Col. 3) (4)	Employee Compensation (5)
EDUCATIONAL AND GENERAL		$	$	$	$	
Instruction	01					
Research	02					
Public Service	03					
Academic Support	04					
Includes Library Expenditures of $	05					
Student Services	06					
Institutional Support	07					
Operation and Maintenance of Plant	08					
Scholarships and Fellowships	09					
Mandatory Transfers	10					
Nonmandatory Transfers	11					
TOTAL EDUCATIONAL AND GENERAL EXPENDITURES AND TRANSFERS (sum of lines 1-4, 6-11)	12	$	$	$		
AUXILIARY ENTERPRISES	13					
Includes Mandatory Transfer of $	14					
Includes Nonmandatory Transfer of $	15					
HOSPITALS	16					
Includes Mandatory Transfer of $	17					
Includes Nonmandatory Transfer of $	18					
INDEPENDENT OPERATIONS . . .	19					
Includes Mandatory Transfer of $	20					
Includes Nonmandatory Transfer of $	21					
TOTAL CURRENT FUNDS EXPENDITURES AND TRANSFERS (sum of lines 12,13,16, &19)	22	$	$	$		
Total Salaries and Wages for E & G (sum of column 4 lines 1-4 & 6-8)	23					$
Total E&G Employee Fringe Benefits Paid From Institutional Accounts	24					
Total E&G Employee Fringe Benefits Paid from Noninstitutional Accounts — not included on line 12 col 3	25					
Total E&G Employee Fringe Benefits Paid from Noninstitutional Accounts — included on line 12 col 3	26					
TOTAL E&G EMPLOYEE COMPENSATION (sum of lines 23-26)	27					$

Part C - CLARIFYING QUESTIONS REGARDING TOTAL E & G EXPENDITURES AND REVENUES

1. Institutional Systems

This unit is part of an institutional system

a. ☐ No
b. ☐ Yes

If yes, are any costs for the operation of central administration included in this report

c. ☐ No
d. ☐ Yes Amount $ _____

2. Tuition and Fees

a. Tuition and fees (Copy Part A, line 1, column 3) $ _____
b. Tuition and fees collections (including remissions) used for purposes other than current operations (e.g. debt retirement, additions to plant) not reported in Part A, line 1 $ _____
c. TOTAL TUITION AND FEES (a + b) $ _____

3. Intercollegiate Athletics

This institution has an intercollegiate athletic program

a. ☐ No
b. ☐ Yes

If yes, it is funded through one or more of the following institutional accounts: (check all that apply and enter dollar amount)

c. ☐ Amount reported as part of Auxiliary Enterprises (Part B, line 13) $ _____
d. ☐ Amount reported as part of Instruction (Part B, line 1) $ _____
e. ☐ Amount reported as part of Student Services (Part B, line 6) $ _____

It is funded through a separate corporation or foundation

f. ☐ Amount from a separate corporation or foundation $ _____

4. Other Exclusions

Are some educational and general expenditures for professorships, research, or other functions paid directly by foundations or other organizations so they are not included in Part B.

a. ☐ No
b. ☐ Yes Amount $ _____

5. Employee Fringe Benefits

Specify from which of the following are employee fringe benefits paid: (check one)

a. ☐ All employee fringe benefits included on Part B, line 12, column 3 are charged against Institutional Support (Part B, line 7) and not to the functional categories to which they are attributable.

b. ☐ All employee fringe benefits included in Part B, line 12, column 3 are charged against attributable functional categories (i.e., Instruction, Research, Public Service, Academic Support, Student Services, Operation and Maintenance of Plant, Part B, lines 1-4, 6-8) as well as to Institutional Support (Part B, line 7)

6. Agricultural Experiment Stations and Extension Services (For Land Grant Institutions Only) (check all that apply)

a. ☐ Expenditures for agricultural experiment stations are included in Part B
b. ☐ Expenditures for agricultural extension services are included in Part B
c. ☐ Not Applicable

Part D - UTILITY EXPENDITURES

Expenditures	Line No.	Amount (whole dollars)
Total Expenditures for Utilities (exclude hospitals)	01	$

Part E - SCHOLARSHIP AND FELLOWSHIP EXPENDITURES (To be completed by institutions responding on Part B, line 9)

Source	Line No.	Amount (whole dollars)		
		Unrestricted (1)	Restricted (2)	Total (3)
Federal Government Pell Grants	01	$	$	$
Other Federal	02			
State Government	03			
Local Government	04			
Private	05			
Institutional	06			
Total Scholarship and Fellowship Expenditures (sum of lines 1-6; this total must equal corresponding totals on Part B, line 9, cols. 1-3)	07	$	$	$

Part F - EXPENDITURES FOR ACQUISITIONS OF LIBRARY MATERIALS

Expenditures	Line No.	Amount (whole dollars)
Expenditures for Library Acquisitions, Included in Part B, line 5	01	$
Expenditures for Library Acquisitions, NOT Included in Part B, line 5	02	
Total Expenditures for Library Acquisitions (sum of lines 1 and 2)	03	$

Part G - INDEBTEDNESS ON PHYSICAL PLANT

Balances and Transactions	Line No.	Amount (whole dollars)
Balance Owed on Principal at Beginning of Year	01	$
Additional Principal Borrowed During Year	02	
Payments Made on Principal During Year	03	
Balance Owed on Principal at End of Year (line 1, plus line 2, minus line 3)	04	
Interest Payments on Physical Plant Indebtedness	05	

Part H - DETAILS OF ENDOWMENT ASSETS

Balances and Yield	Line No.	Book Value (1)	Market Value (2)	Amount (3)
Value of Endowment Assets at the Beginning of the Fiscal Year	01	$	$	
Value of Endowment Assets at the End of the Fiscal Year	02			
Endowment Yield (dividends, interest, rents, royalties, etc.)	03			$
Endowment Yield (line 3) Transferred to Endowment Fund	04			
Transfer from the Endowment Fund to the Current Fund (Only for those institutions employing the Total Return Concept and Spending Rule)	05			

Part I - STATEMENT OF CHANGES IN FUND BALANCES

	Line No.	Current Funds[2]		Loan Funds	Endowment and Similar Funds	Annuity and Life Income Funds	Plant Funds[3]
		Unrestricted	Restricted				
		(1)	(2)	(3)	(4)	(5)	(6)
Additions (Includes Revenues)	01	$	$	$	$	$	$
Deductions (Includes Expenditures)	02						
Total Transfers into/(Out of)[1]	03						
Summary							
Net Increase/(Decrease) For Year	04						
Fund Balance at Beginning of Year	05						
Fund Balance at End of Year	06						

[1] Total of row should sum to zero.
[2] Include all current funds including those for auxiliary enterprises
[3] Include the value of investment in physical plant

Part J - HOSPITAL REVENUES (To be completed by institutions responding on Part A, line 13)

Source	Line No.	Amount (whole dollars)		
		Unrestricted	Restricted	Total
		(1)	(2)	(3)
Government Appropriations Federal	01	$	$	$
State	02			
Local	3			
Sales and Services	4			
All Gifts, Grants, and Contracts	05			
Endowment Income	06			
Other Sources	07			
Total (sum of lines 1-7; this total must equal corresponding totals on Part A, line 13, columns 1 - 3)	08	$	$	$

Part K - PHYSICAL PLANT ASSETS

Type of Asset	Line No.	Book Value At Beginning of Year	Additions During Year	Deductions During Year	Book Value At End of Year	Current Replacement Value (est.)
		(1)	(2)	(3)	(4)	(5)
Land	01	$	$	$	$	
Buildings	02					$
Equipment	03					

Part L - FISCAL YEAR 1990 INTEREST EARNINGS AND CASH AND SECURITY DATA FOR BUREAU OF THE CENSUS

(To be completed by all state and local public institutions)

Finance Item	Line No.	Amount (whole dollars)
Interest Earnings from All Funds - Include Earnings from Current, Plant, and Endowment Funds	01	$
Total Cash and Security Assets Held at End of Fiscal Year in Sinking or Debt Service Funds	02	
Total Cash and Security Assets Held at End of Fiscal Year in Bond Funds	03	
Total Cash and Security Assets Held at End of Fiscal Year in All Other Funds - Include Current and Endowment Funds - Restricted and Unrestricted	04	

Local institutions should continue completing this form in Part M. State institutions should skip to Part N.

Part M - FISCAL YEAR 1990 TAX AND CAPITAL OUTLAY EXPENDITURES DATA FOR BUREAU OF THE CENSUS

(To be completed by local public institutions only)

Selected Financial Item	Line No.	Amount (whole dollars)
Receipts from Property and Nonproperty Taxes from All Funds	01	$
Equipment Purchase - Current Funds	02	
Equipment Purchase - Plant, Capital Outlay, or Bond Funds	03	
Construction Expenditures - Plant, Capital Outlay, or Bond Funds	04	
Land Purchase - Plant, Capital Outlay, or Bond Funds	05	

Part N - FISCAL YEAR 1990 EXPENDITURES AND INDEBTEDNESS DATA FOR BUREAU OF THE CENSUS

(To be completed by State public institutions only)

Selected Finance Items	Line No.	Amount (whole dollars)			
		Education and General/ Indep Opers (1)	Auxiliary Enterprises (2)	Hospitals (3)	Agriculture Extension/ Experiment Services (4)
Salaries and Wages	01	$	$	$	$
Payment to State Retirement Funds	02				
Equipment Purchase - Current Funds	03				
Equipment Purchase - Plant Funds	04				
Construction - Plant Funds	05				
Land Purchase - Plant Funds	06				
Gross Charges from Product Sales	07				
Revenue from Federal Government	08				
Current Expenditures - Other than Salaries	09				
Interest Paid on Revenue Debt	10				

Indebtedness - Exclude Debt Issued and Backed by State Government. Include Revenue Debt (Stadiums, Dormitories) Issued by Your Institution.

Long-term Debt Outstanding at Beginning of Fiscal Year	11	$			
Long-term Debt Issued During Fiscal Year	12				
Long-term Debt Retired During Fiscal Year	13				
Long-term Debt Outstanding at End of Fiscal Year (Line 11 plus 12 minus line 13)	14				
Short-term Debt Outstanding at Beginning of Fiscal Year	15				
Short-term Debt Outstanding at End of Fiscal Year	16				

APPENDIX J

AN ANALYSIS of INSTRUCTIONAL WORKLOAD: FALL and SPRING SEMESTERS,
1987-88 thru 1989-90

DEPARTMENT/UNIT: COLLEGE SUMMARY

	FALL 1987	FALL 1988	FALL 1989	SPRING 1988	SPRING 1989	SPRING 1990	ANNUAL AVERAGE 1987-88	ANNUAL AVERAGE 1988-89	ANNUAL AVERAGE 1989-90
FTE MAJORS									
Undergraduate	1,121	1,082	1,019	962	931	937	1,042	1,007	978
Graduate	259	280	234	258	266	260	259	273	247
TOTAL	1,380	1,362	1,253	1,220	1,197	1,197	1,300	1,280	1,225
STUDENT CREDIT HOURS									
Lower Division	2,044	2,157	2,163	2,113	1,217	1,270	2,079	1,687	1,717
Upper Division	5,347	5,042	4,914	4,706	5,091	5,209	5,027	5,067	5,062
Graduate	2,721	3,022	2,814	2,586	2,752	2,813	2,654	2,887	2,814
TOTAL	10,112	10,221	9,891	9,405	9,060	9,292	9,759	9,641	9,592
FTE STUDENTS TAUGHT									
Lower Division	136.3	143.8	144.2	140.9	81.1	84.7	138.6	112.5	114.4
Upper Division	356.5	336.1	327.6	313.7	339.4	347.3	335.1	337.8	337.4
Graduate	226.8	251.8	234.5	215.5	229.3	234.4	221.1	240.6	234.5
TOTAL	719.5	731.8	706.3	670.1	649.9	666.4	694.8	690.8	686.3
FTE FACULTY									
FTE Faculty On Appointment	71.0	61.4	70.3	67.5	65.7	65.3	69.2	63.5	67.8
Supplemental FTE Faculty	2.3	3.0	2.7	2.9	3.8	3.4	2.6	3.4	3.0
TOTAL	73.3	64.4	73.0	70.4	69.5	68.7	71.8	66.9	70.8

NOTE: "FTE Faculty on Appointment" data are taken directly from UPS 603 Report for respective semesters from Fall 1987 through Spring 1990. "Supplemental FTE Faculty" data for 1989-90 are computed averages from actual data for the preceding two years, as extracted from the AAR data base.

AN ANALYSIS of INSTRUCTIONAL WORKLOAD: FALL and SPRING SEMESTERS, 1987-88 thru 1989-90

DEPARTMENT/UNIT: COLLEGE SUMMARY

WORKLOAD RATIOS	FALL 1987	FALL 1988	FALL 1989	SPRING 1988	SPRING 1989	SPRING 1990	ANNUAL AVERAGE 1987-88	ANNUAL AVERAGE 1988-89	ANNUAL AVERAGE 1989-90
Student Credit Hours/ FTE Faculty	137.9	158.8	135.6	133.6	130.4	135.3	135.8	144.6	135.4
FTE Students/FTE Faculty	9.8	11.4	9.7	9.5	9.4	9.7	9.7	10.4	9.7
Teaching Credit Hours/ FTE Faculty on Appointment	3.8	4.3	4.1	4.1	3.8	3.9	4.0	4.0	4.0

NOTE: Teaching Credit Hours/FTE Faculty on Appointment for 1989-90 is an estimate based upon average for preceeding two years.

ON-LOAD/OFF-LOAD DATA	1987-88	1988-89	1989-90
Total Student Credit Hours Taught On-Load	17,980	17,878	0
Total Student Credit Hours Taught by Supplemental Personnel and Faculty Overload	1,859	1,977	0

EXTERNAL FUNDING DATA	1987-88	1988-89	1989-90
Externally Sponsored Research	$6,268,559	$7,217,284	$904,263
Externally Sponsored Public Service	$38,955	$136,449	$0
TOTAL EXTERNAL SUPPORT	$6,307,514	$7,353,733	$904,263
External Funding/FTE Faculty On Appointment	$91,129	$115,789	$13,337

AN ANALYSIS of INSTRUCTIONAL WORKLOAD: FALL and SPRING SEMESTERS,
1987-88 thru 1989-90

DEPARTMENT/UNIT: COLLEGE SUMMARY

INCOME and EXPENSE RATIOS	1987-88	1988-89	1989-90
Total Instructional Costs	$7,661,362	$7,706,634	$7,602,811
Total Instructional Cost/Student Credit Hour	$393	$400	$396
Total Instructional Cost/FTE Student	$11,027	$11,156	$11,078

NOTE: Total Instructional Costs consist of TOTAL EXPENDITURES (excluding Information Processing) for INSTRUCTION (functions 01 thru 08) from the expenditure data attached

Tuition Revenue (composite full-time tuition rate multiplied by FTE MAJORS)	$5,764,200	$6,146,718	$6,436,150
Earned Income (composite per credit hour tuition rate multiplied by Student Credit Hours)	$3,950,293	$4,279,661	$4,687,301
Earned Income/Total Instructional Costs	0.52	0.56	0.62

DEPARTMENT: 7250 - COLLEGE OF
FISCAL YEARS: 1988-90 SUMMARY

	BASIC (01-1,01-3)	SELF-SUPPORTING (02-1)	ALLOCATED (01-5,01-6,01-7, 02-6,02-7)	RESTRICTED (03-X,04-X)	GRAND TOTAL
EXPENDITURES (EXCLUDING INFORMATION PROCESSING)					
FISCAL YEAR 1987-88	5,978,282	55,505	1,260,887	7,744,593	15,039,267
FISCAL YEAR 1988-89	7,199,304	30,626	1,656,819	8,452,110	17,338,859
FISCAL YEAR 1989-90 (BUDGETED)	8,134,867	31,504	152,250	1,069,693	9,388,314

APPENDIX K

UNIVERSITY OF DELAWARE
HOME ADDRESS AND CAREER PLANS

IF ANY OF THE DATA PRE-PRINTED IN THE SHADED AREAS BELOW IS INCORRECT OR INCOMPLETE, PLEASE ENTER THE CORRECT INFORMATION IN THE NON-SHADED AREAS PROVIDED. BE SURE THAT YOUR HOME ADDRESS IS ONE WHERE YOU CAN BE REACHED AFTER GRADUATION.

SOCIAL SECURITY NUMBER | NAME: LAST, FIRST, MIDDLE, SUFFIX.

STUDENT HOME ADDRESS

HOME ADDRESS UPON GRADUATION (DIPLOMA MAILED TO THIS ADDRESS)

640 SEQUENCE: R.D. #, BOX #, APARTMENT, AS APPROPRIATE

642 CITY | 644 STATE | 646 ZIP CODE –

650 AREA CODE | TELEPHONE NUMBER (USE NUMERALS) | ☐ NO TELEPHONE | COUNTRY, IF NOT U.S. | 648

NEXT OF KIN INFORMATION

NEXT OF KIN NAME (PERSON WHO WILL KNOW HOW TO CONTACT YOU. SPOUSE, PARENT, ETC.)

600 TITLE AND NAME

602 RELATIONSHIP (Check One)
☐ 1 SPOUSE ☐ 4 FATHER AND MOTHER ☐ 8 OTHER RELATIONSHIP TO STUDENT (SPECIFY)_____
☐ 3 FATHER ☐ 2 MOTHER ☐ 7 GUARDIAN

699 3 CIRCLE IF NEXT OF KIN ADDRESS SAME AS HOME ADDRESS AND PROCEED TO PAGE 2.

NEXT OF KIN ADDRESS AND TELEPHONE NUMBER.

620 SEQUENCE: R.D. #, BOX #, STREET, APARTMENT, AS APPROPRIATE

622 CITY | 624 STATE | 628 ZIP CODE –

632 AREA CODE – TELEPHONE NUMBER (USE NUMERALS) | ☐ NO TELEPHONE | COUNTRY IF NOT U.S. | 630

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(1-10) OFFICE USE ONLY: Dup. S.S. No. from page 1.

(11-12)

EMPLOYMENT

In the boxes at the left write the number that most nearly corresponds with your employment status:

01 I hold or have accepted a full-time position related to my major field.
02 I hold or have accepted a full-time position unrelated to my major field.
03 I hold or have accepted a part-time position related to my major field.
04 I hold or have accepted a part-time position unrelated to my major field.
05 I am in or about to enter military service.
06 I hold no job and am actively seeking a full-time job (Also code 6 in box 55, if applicable)
07 I hold no job and am actively seeking a part-time job.
08 I am not seeking a job, because I am furthering my education (at graduate or professional school, for example).
09 I am not seeking a job, as I shall be traveling.
10 I am not seeking a job, because I am working full-time at housework and/or parenting.
11 I am not seeking a job for some other reason.

If you have or are about to start a job of any kind, print what type of work it is in boxes below. If teaching, include grade and/or subject.

(13-33)

Type of Work

Job Title

(34-54)

Name of Employer

Address of Employer

With reference to the above job:

(55)

1 It is my first full-time career employment which I am about to start, or have had for less than a year.
2 It is a new (or less than a year old) position, but not my first career employment.
3 It is career employment that I have held for more than a year.
4 I do not regard it as career employment, but am not seeking other employment at this time.
5 I do not regard it as career employment, and would like assistance from the Career Planning & Placement Office
6 I hold no job, and would like assistance from the Career Planning & Placement Office.
7 I hold no job, but do not desire further assistance from the University.

(56)

1 My current degree was important in obtaining the position.
2 I do not need a degree (or as high a degree as I hold) for the job.

(57-58)

Indicate location in which you are or will be working:

01 New Castle County
02 Kent County
03 Sussex County
04 Pennsylvania
05 Maryland
06 New Jersey
07 New York
08 Virginia
09 West Virginia
10 Washington, D.C.
11 New England States
12 South
13 South-West
14 Mid-West
15 West
16 Outside continental U.S.A.

(59)

Have you fulfilled the requirements for the Standard Teaching Certificate?

1 Yes, am about to, or did less than a year ago.
2 Yes, I was certified to teach more than a year ago.
3 No.

(60-61)

If you answered "yes" to the previous question, code one of the following answers in boxes 60-61, otherwise proceed to box 62.

01 I had a teaching position prior to graduation, which I still hold.
02 I have had a teaching position before, but accepted a new one following graduation.
03 I accepted my first teaching position for the fall following graduation.
04 I accepted my first teaching position for January following graduation.
05 I am actively seeking a teaching position, and have no other job.
06 I have accepted a non-teaching or part-time job, but am still actively seeking a teaching position.
07 I have accepted a non-teaching job, and am not seeking a teaching position.
08 I have no job, but am only seeking a non-teaching position.
09 I have a part-time job, and am not seeking full-time employment.
10 I have a part-time job, but am seeking a non-teaching full-time job.
11 I am not seeking a job of any kind at this time.

(62-66)
ANNUAL SALARY

For the job you have accepted or currently hold indicate ANNUAL SALARY in terms of base pay (excluding commission, travel allowance, etc.). This information is confidential and will not appear on any reports, either linked with your name or the name of the company for which you are working. This information is used for calculating averages only. If your salary is four digits, enter a leading zero in the first box.

(67)

Number of Job Offers Received: Indicate the total number of job offers you received, including the one accepted. List particulars about offers not accepted below:

Annual Salary	Position	Organization	Reason Not Accepted
(68-72)			
(73-77)			
(78-82)			
(83-87)			

Again, salary information is confidential and will only be used for calculating averages. For 4-digit salaries enter a zero in first box.

EDUCATIONAL PLANS

(88)

Write the number in the box at the left that most nearly corresponds with your educational status for the academic year following graduation:

1 Going to graduate or professional school full-time with financial aid in the form of a fellowship or assistantship.
2 Going to graduate or professional school full-time at own expense.
3 Going to graduate or professional school part-time with financial aid from employer, state or other source.
4 Going to graduate or professional school part-time at own expense.
5 Participating in a company or military training program.
6 Attending continuing education courses, but not working towards a higher degree.
7 Hope to go to graduate or professional school, but have not yet decided on (or been accepted at) a school.
8 Completing a bachelor's degree or working towards one in another major.
9 Not pursuing further formal education.

Reply to the following questions only if you have been accepted by a graduate or professional school for the academic year following graduation or are currently attending one, otherwise skip to box 114

(89-109)

Name of graduate or professional school.

(110)

Region of Graduate or Professional School:

1 Mid-Atlantic States
2 New England
3 South
4 Mid-West
5 North-West
6 West
7 South-West
8 Outside continental U.S.A.

(111-112)

Major Field of Study in Graduate or Professional School:

01 Agricultural Sciences
02 Architecture
03 Art
04 Biological Sciences
05 Business or Economics
06 Dentistry
07 Divinity
08 Education (including Physical Education)
09 Engineering
10 Home Economics
11 Humanities (English, Languages, Philosophy, etc.)
12 Law
13 Library Science
14 Mathematics (including Statistics & Computer Science)
15 Medicine
16 Nursing
17 Performing Arts or Music
18 Physical Sciences (Chemistry, Physics, Geology, etc.)
19 Social Sciences (Anthropology, Geography, Political Science, Psychology, Sociology, etc.)
20 Veterinary Medicine
21 Other (specify) _____

(113)

Type of Degree Planned:

1 Master's
2 Academic Doctorate (Ph.D. or Ed.D.)
3 Professional degree (e.g., MD, LLB, DVM, DDS, BD, etc.)
4 Non-degree certificate program (e.g., paralegal, dietetics, etc.)

SATISFACTION WITH EDUCATION

(114)

All things considered, how satisfied were you with your educational experiences at the University of Delaware?
1. Very dissatisfied 2. Fairly dissatisfied 3. Fairly satisfied 4. Very satisfied

(See next page)

USE MADE OF CAREER PLANNING AND PLACEMENT SERVICE

Which of the following services provided by the Career Planning and Placement Office did you utilize?

1. Used 2. Did not use

☐	Campus interview program	☐	Credential services
☐	Career planning workshops	☐	Individual counseling session
☐	Career Resource Center	☐	Job vacancy bulletin
☐	Experiential programs	☐	Other (specify) _____
(115-118)		(119-122)	

If you have any suggestions for improving the University, or any other comments about your experiences at the University which may be useful for future planning, please write them below or on a separate sheet of paper, and return with this questionnaire.

INFORMATION FOR OFFICE OF ALUMNI RELATIONS

The Office of Alumni Relations is asked by various organizations to provide mailing lists. Information requested below is for this purpose only and the organizations listed are those which make such requests.

☐☐
☐☐
☐☐
☐☐
(123-130)

IF YOU ARE A MEMBER OF ANY HONOR OR PROFESSIONAL SOCIETIES OR SERVICE ORGANIZATIONS ENTER THE APPROPRIATE NUMBERS IN THE BOXES PROVIDED. (If you belong to more than four, choose the four most important to you.)

00 None
21 Alpha Kappa Delta
29 Alpha Phi Omega
01 Alpha Zeta
27 Beta Alpha Psi
02 Beta Beta Beta
03 Beta Gamma Sigma
34 Chi Epsilon
04 Epsilon Epsilon Epsilon
22 Delta Kappa Gamma
23 Delta Phi Alpha
05 Eta Kappa Nu
06 Eta Sigma Phi
30 Gamma Sigma Sigma
07 Kappa Delta Pi
28 Kirkwood Cadet Society
08 Mortar Board
09 Omicron Delta Epsilon
10 Omicron Delta Kappa
11 Omicron Nu
31 Order of Omega
12 Phi Beta Kappa
13 Phi Kappa Phi
24 Pi Delta Phi
32 Phi Alpha Theta
14 Pi Mu Epsilon
25 Pi Sigma Alpha
15 Pi Sigma Epsilon
16 Psi Chi
17 Scabbard and Blade
18 Sigma Pi Sigma
26 Sigma Theta Tau
19 Sigma Xi
20 Tau Beta Pi
99 Other (specify)_____

☐☐
☐☐
☐☐
☐☐
(131-138)

IF YOU WERE A MEMBER OF ANY OF THE FOLLOWING ORGANIZATIONS INDICATE WHICH IN THE BOXES PROVIDED.

00 None
01 Blue Hen Yearbook
02 Concert Choir, or other singing group
03 *The Review* (Newspaper)
04 University Theatre
05 Marching Band
06 Radio Station WXDR-FM
99 Other (specify)_____

☐☐☐
(139-141)

IF YOU BELONGED TO A SOCIAL FRATERNITY OR SORORITY FILL IN THE APPROPRIATE ONE.
Put first letter in box 139

AAA None
ACO Alpha Chi Omega
AEP Alpha Epsilon Pi
AKA Alpha Kappa Alpha
AOP Alpha Omicron Pi
AP Alpha Phi
APA Alpha Phi Alpha
ASA Alpha Sigma Alpha
ATO Alpha Tau Omega
DST Delta Sigma Theta
DTD Delta Tau Delta
DU Delta Upsilon
KA Kappa Alpha
KDR Kappa Delta Rho
LCA Lambda Chi Alpha
OPP Omega Psi Phi
PKA Pi Kappa Alpha
PKS Phi Kappa Psi
PKT Phi Kappa Tau
PSS Phi Sigma Sigma
SK Sigma Kappa
SN Sigma Nu
SPE Sigma Phi Epsilon
TC Theta Chi
TKE Tau Kappa Epsilon
ZBT Zeta Beta Tau